Digitally signed by Ceaicovschi Tudor
Date: 2021.09.20 14:09:00 EEST
Reason: MoldSign Signature
Location: Moldova

TÜVRheinland®

Certificate

The Certification Body of
TÜV Rheinland LGA Products GmbH

hereby certifies that the organization

One Lambda, Inc.
22801 Roscoe Blvd
West Hills CA 91304
USA

has established and applies a quality management system for medical devices for the following scope:

(see attachment for scope and additional site included)

Proof has been furnished that the requirements specified in

EN ISO 13485:2016

are fulfilled. The quality management system is subject to yearly surveillance.

Effective Date:	2020-07-07
Certificate Registration No.:	SX 60143059 0001
An audit was performed. Report No.:	31895531 001
This Certificate is valid until:	2022-07-11

Certification Body

DAkkS
Deutsche
Akkreditierungsstelle
D-ZM-14169-01-02

TÜV Rheinland Product Safety GmbH
TÜVRheinland
Zertifizierungsstelle

Date 2020-07-07

S. Liu

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
Tel.: +49 221 806-1371 Fax: +49 221 806-3935 e-mail:cert-validity@de.tuv.com http://www.tuv.com/safety

TÜVRheinland®

Doc. 1/2, Rev. 0

TÜV Rheinland
LGA Products GmbH
Tillystraße 2, 90431 Nürnberg

Attachment to Certificate
Registration No.: SX 60143059 0001
Report No.: 31895531 001

Organization: One Lambda, Inc.
22801 Roscoe Blvd
West Hills CA 91304
USA

Scope: Design and Development, Manufacturing, Distribution, Servicing and Installation of in vitro diagnostic assays, reagents, instruments and software for determination of tissue groups used in the field for compatibility testing for transplantation diagnostics

Certification Body

DAkkS
Deutsche Akkreditierungsstelle
D-ZM-14169-01-02

TÜV Rheinland Product Safety GmbH
TÜVRheinland®
Zertifizierungsstelle

Date: 2020-07-07

S. Liu

TÜVRheinland®

Doc. 2/2, Rev. 0

TÜV Rheinland
LGA Products GmbH
Tillystraße 2, 90431 Nürnberg

Attachment to Certificate
Registration No.: SX 60143059 0001
Report No.: 31895531 001

Organization: One Lambda, Inc.
22801 Roscoe Blvd
West Hills CA 91304
USA

Scope:

Additional Site:

One Lambda GmbH
Neuendorfstr. 25
16761 Henningsdorf
Germany

Scope: Activities related to customer service and complaint investigation

Certification Body

DAkkS
Deutsche Akkreditierungsstelle
D-ZM-14169-01-02

TÜV Rheinland Product Safety GmbH
TÜVRheinland
Zertifizierungsstelle

Date: 2020-07-07

S. Liu

EC Certificate

Directive 98/79/EC Annex IV, excluding Sections 4 and 6
Full Quality Assurance System
In Vitro Diagnostic Medical Devices

Registration No.: HL 60143129 0001

Report No.: 31895531 005

Manufacturer:
One Lambda, Inc.
22801 Roscoe Blvd
West Hills CA 91304
USA

Products:
In vitro diagnostic assays and reagents for the determination of HLA tissue groups

Products: see attachment

Replaces Approval, Registration No.: HL 60150524 0001

Expiry Date: 2024-05-26

The Notified Body hereby declares that the requirements of Annex IV, excluding section 4 and 6 of the directive 98/79/EC have been met for the listed products. The above named manufacturer has established and applies a quality assurance system, which is subject to periodic surveillance, defined by Annex IV, section 5 of the aforementioned directive. For placing on the market of List A devices covered by this certificate an EC design-examination certificate according to Annex IV, section 4 and a verification of manufactured products according to section 6 is required.

Effective Date: 2020-07-08

Date: 2020-07-08

Notified Body

TÜV Rheinland LGA Products GmbH Zertifizierungsstelle

Ning N.C. Chang

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
TÜV Rheinland LGA Products GmbH is a Notified Body according to Directive 98/79/EC concerning in vitro diagnostic medical devices with the identification number 0197.

TÜVRheinland®

Doc. 1/1, Rev. 1

TÜV Rheinland
LGA Products GmbH
Tillystraße 2, 90431 Nürnberg

Attachment to Certificate
Registration No.: HL 60143129 0001
Report No.: 31895531 006

Manufacturer: One Lambda, Inc.
22801 Roscoe Blvd
West Hills CA 91304
USA

Products:

HLA Class I and Class Antigen Typing Products
- AllSet Gold+ SSP
- SeCore Sequence Based Typing
- Micro SSP DNA Typing Tests
- LABType
- HLA Tissue Typing Tests
- AllType NGS 11-Loci Amplification Kit
- LinkSeq HLA Typing Kits

HLA Antibody Screening
- C1qScreen
- FlowPRA Screening Tests
- LABScreenMulti
- LABScreen
- Lambda Cell Trays
- Lambda Antigen Trays

Monoclonal Antibodies for cell surface antigens
- Fluorescent Conjugated Monclonal Antibodies

Notified Body

TÜV Rheinland LGA Products GmbH TÜVRheinland® Zertifizierungsstelle

Date: 2021-01-15

Dipl.-Ing. Sven Hoffmann

Certificate

Certificate No.:	MD 2233216 234120969-10 rev 01
Manufacturer:	**One Lambda, Inc.** 22801 Roscoe Blvd. West Hills, CA 91304 USA
REPs Facility ID:	F003909
Certification criteria:	ISO 13485:2016 Australia Therapeutic Goods (Medical Devices) Regulations, 2002, Schedule 3 Part 1 (excluding Part 1.6) – Full Quality Assurance Procedure Brazil RDC ANVISA n. 16/2013, RDC ANVISA n. 23/2012, RDC ANVISA n. 67/2009 Canada Medical Devices Regulations – Part 1 – SOR 98/282 United States 21 CFR 820, 21 CFR 803, 21 CFR 806, 21 CFR 807 – Subparts A to D
Scope:	Design and Development, Manufacture, Distribution, Servicing and Installation of in Vitro Diagnostics assays reagents, instruments and software for determination of tissue groups used in the field of compatibility testing for transplantation diagnostics.

TUV Rheinland of North America, Inc., an MDSAP recognized Auditing Organization, certifies that the quality management system of the Manufacturer has been audited against and found to conform the Certification criteria for the Scope contained in this certificate. The quality management system is subject to annual surveillance audit(s).

Project No.:	31895531.002
Issue Date:	2021-02-17
Effective Date:	2021-02-17
Expiry Date:	2023-02-26

MDSAP
MEDICAL DEVICE SINGLE AUDIT PROGRAM

Certification officer: Song Liu
TUV Rheinland of North America, Inc.

The validity of the certificate can be verified on https://www.certipedia.com/quality_marks/9000010776?locale=en or calling 1-888-743-4652.

TUV Rheinland of North America, Inc., 295 Foster St. Suite 100, Littleton, MA 01460, USA
Tel: (925) 249-9123, Fax: (925) 249-9124

Certificate

Certificate No.: MD 2233216 234120969-10 rev 01

Manufacturer: **One Lambda, Inc.**

22801 Roscoe Blvd.
West Hills, CA 91304
USA

The scope of certification includes the following additional site:

No.	Location	Scope
/02	One Lambda GmbH Neuendorfstr. 25 16761 Henningsdorf Germany	REPs Facility ID: N/A Service of in Vitro Diagnostics assays reagents, instruments and software for determination of tissue groups used in the field of compatibility testing for transplantation diagnostics.

Project No.: 31895531.002

Issue Date: 2021-02-17

Effective Date: 2021-02-17

Expiry Date: 2023-02-26

MDSAP
MEDICAL DEVICE SINGLE AUDIT PROGRAM

Certification officer: S. Liu
TUV Rheinland of North America, Inc.

The validity of the certificate can be verified on https://www.certipedia.com/quality_marks/9000010776?locale=en or calling 1-888-743-4652.

TUV Rheinland of North America, Inc., 295 Foster St. Suite 100, Littleton, MA 01460, USA
Tel: (925) 249-9123, Fax: (925) 249-9124

WORKSHEET

LABType® SSO Class I A Locus Typing Test, Lot #010

Name

☐ Patient ☐ Male
☐ Donor ☐ Female

Race

ABO/Rh

Sample I.D.

Birthdate

Relationship to Patient

Disease

DNA Extraction Method

Bead Mix Exp. Date

DNA Concentration

Bead Mix Lot#

Results

Taq Lot #

Primer Mix Lot#

D-mix Lot #/Batch #

SAPE Solution Lot#

Comments:

LABScan™ 100 Serial#

Raw Data File ID

Test Performed by

Date

Read by

Date

Reviewed by

Date

Photo Documentation

The allele nomenclature includes the HLA alleles listed in the July 2009 update of the IMGT/HLA database release 2.26.0 (Robinson J, et al., "IMGT/HLA and IMGT/MHC: sequence databases for the study of the major histocompatibility complex" Nucleic Acids Research (2003), 31, 311-314). Complete update information is located at www.ebi.ac.uk/imgt/hla/.

Revision summary: July 2009 nomenclature update based on IMGT/HLA database version 2.26.0.

A*0111N is not amplified by the primers for this kit. A*1130 and A*3216 may have weak or no amplification. A*68020102 may have weak or no amplification with primers for exons 1 and 2.

One Lambda, Inc. 21001 Kittridge Street, Canoga Park, CA 91303-2801 Tel: (818) 702-0042 Fax: (818) 702-6904 www.onelambda.com

WORKSHEET

LABType® SSO Class I A Locus Typing Test, Lot #010

Name _____ Sample ID _____

A Locus

Reaction Results (mark positive locations)

Serology Equivalent	A Locus Allele Group	001	002	003	004	009	010	011	012	013	015	017	019	020	021	022	023	024	025	026	027	029	030	031	032	033	035	036	037	038	039	040	042	043	044	046	047	048	052	054	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	084	085	086	087	088	099
	Cut Off Value	25%	25%	15%	50%	65%	20%	30%	60%	100%	45%	25%	30%	15%	30%	80%	40%	70%	80%	40%	45%	20%	30%	12%	100%	85%	2%	20%	35%	65%	70%	25%	20%	25%	20%	35%	80%	20%	80%	20%	55%	80%	25%	35%	25%	45%	25%	80%	30%	27%	25%	55%	35%	80%	40%	25%	70%	80%	80%	25%	20%	15%	20%	22%	20%	15%	12%	23%	20%
P.C.	Positive Control									13															32																																													
N.C.	Negative Control																										35																																										
A1,A"Blank",A-	A*01010101~010102N/0103/0105/ 04N/09/16N/18N/22N/25/29/32~37													20							27													43							56		58			61						67						74	75									
A1	A*010102													20							27													43									58			61						67						74	75									
A1	A*010104													20							27													43							56		58									67						74	75									
A1,A-	A*0102/24																				27													43							56		58			61						67						74	75									
A1	A*0103													20							27													43							56		58			61	62					67						74										
A-	A*0106													20							27													43							56		58			61						67				72		74	75									
A1	A*0107				4									20							27													43							56		58									67			71			74	75									
A1	A*0108													20							27													43				48			56		58			61						67							75									
A-	A*0110													20				24			27													43							56		58			61												74	75									
A-	A*0112/19													20			23				27										39			43							56		58			61		63											75									
A-	A*0113							11						20							27													43							56								64			67						74	75									
A-	A*0114													20							27										39			43							56		58			61						67							75									
A"Blank"	A*0115N/27N													20							27													43							56		58			61						67							75									
A-	A*0117													20							27													43							56					61						67						74	75									
A-	A*0120																				27													43							56		58			61						67	68					74										
A-	A*0121													20			23				27													43							56		58			61												74	75									
A-	A*0123													20							27													43							56		58			61						67						74	75								88	
A-	A*0126													20							27													43							56		58			61												74	75									
A-	A*0128							11						20							27													43							56		58						64			67						74	75									
A-	A*0130													20							27													43		46					56		58			61						67						74	75									
A"Blank"	A*0131N													20							27																			56		58			61						67						74	75									
A2,A2"Low",A"Blank",A-	A*02010101~0102/0104~0109/ 0111~0112/0114~0121/07/09/15N/ 18/2001~2002/24/29~30/33/42~ 43N/53N/59/66~67/7401~75/83N/ 89/93~97; A*9207/09/11/19/21/ 23/32~34/39~41/50/77							11						20			23													38	39					46			52	54									65	66		68				72													
A2	A*020103							11						20			23													38	39					46			52	54									65			68				72												
A2,A-	A*020110/04/1701~1702/73; A*9210/57							11						20			23													38	39					46			52	54									65	66						72												
A2,A-,A"Blank"	A*020113/70/92; A*9213N/25N							11						20			23													38	39					46			52	54										66		68				72												
A2,A-	A*020122/49/68							11						20			23													38	39					46			52	54									65	66		68																
A2,A-	A*0202; A*9215/55							11						20			23													38	39					46			52					59					65	66			69											85				
A203,A-	A*020301~0302; A*9248							11						20		22														38	39					46			52	54									65	66		68	69															
A2,A-	A*020501/08; A*9279							11				19					23													38	39					46			52					59					65	66			69								77			86				
A2,A210,A-	A*020601/0603/0606/10/21/28/ 61/72/91; A*9226/37/44/70							11				19					23													38	39					46			52	54									65	66		68				72					77							
A2	A*020602											19					23													38	39					46			52	54									65			68				72					77							
A2	A*020604							11				19					23													38	39					46			52	54									65	66		68									77							
A2	A*020605							11									23													38	39				44	46			52	54									65	66		68				72												
A2,A-	A*0211/69; A*9228							11						20			23													38	39					46			52	54									65			68				72						78							
A2	A*0212							11						20			23													38	39					46			52	54							63		65	66		68																
A2	A*0213							11						20																38	39					46	47		52	54							63		65	66		68																
A2	A*0214							11				19					23													38	39					46			52					59					65	66						72					77			86				
A2,A-	A*0216; A*9231							11						20			23													38						46			52	54									65	66		68				72	73												
A-	A*0219	1						11						20			23				27										39					46				54	56							63		65	66		68																
A2,A-	A*022201~2202; A*9204							11						20			23													38	39					46			52	54									65	66		68	69																
A2,A-	A*0225/85; A*9245							11						20																38	39					46			52	54									65	66		68				72												

One Lambda, Inc. 21001 Kittridge Street, Canoga Park, CA 91303-2801 Tel: (818) 702-0042 Fax: (818) 702-6904 www.onelambda.com

WORKSHEET

LABType® SSO Class I A Locus Typing Test, Lot #010

Name _____ Sample ID _____

A Locus

Reaction Results (mark positive locations)

Serology Equivalent	A Locus Allele Group	001	002	003	004	009	010	011	012	013	015	017	019	020	021	022	023	024	025	026	027	029	030	031	032	033	035	036	037	038	039	040	042	043	044	046	047	048	052	054	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	084	085	086	087	088	099
Cut Off Value		25%	25%	15%	50%	65%	20%	30%	60%	100%	45%	25%	30%	15%	30%	80%	40%	70%	80%	40%	45%	20%	30%	12%	100%	85%	2%	20%	35%	65%	70%	25%	20%	25%	20%	35%	80%	20%	80%	20%	55%	80%	25%	35%	25%	45%	25%	80%	30%	27%	25%	55%	35%	80%	40%	25%	70%	80%	80%	25%	20%	15%	20%	22%	20%	15%	12%	23%	20%
A-	A*0226							11						20																38	39					46	47		52	54										65	66		68				72													
A-	A*0227							11						20																38	39					46			52	54								63		65	66		68																	
A2,A-	A*0231; A*9238							11						20			23													38	39					46			52											65	66		68				72													
A"Blank",A-	A*0232N/71/86; A*9218/49							11						20			23														39					46			52	54										65	66		68				72													
A2,A-	A*0234/62							11						20			23							31						38	39					46			52	54										65	66		68				72													
A2	A*023501~3503							11						20			23							31						38	39					46			52	54								64	65			68				72													
A-	A*0236							11						20			23				27									38	39					46				54										65	66		68				72													
A-	A*0237							11						20			23				27									38	39					46				54								63		65	66		68																	
A-	A*0238					9		11						20		22			25											38						46			52	54								63		65	66		68						74												
A-	A*0239	1						11						20			23														39					46			52	54										65	66		68				72													
A-	A*0240; A*9230							11						20						26						33				38	39					46			52	54										65	66		68				72													
A2,A-	A*0241; A*9278							11					19				23													38	39								52	54										65	66		68				72				77									
A-	A*0244							11					19				23														39					46			52	54	56							63		65	66		68								77									
A-	A*0245							11						20			23													38	39		43			46			52	54											66		68				72													
A2	A*0246							11	12					20			23													38	39					46			52	54											66		68				72													
A-	A*0247							11						20			23													38	39					46			52						59					65				69											85				
A-	A*0248							11	12					20			23													38	39					46			52	54			58						64				68				72													
A2	A*0250							11									23													38	39					46			52	54										65	66			69																	
A-	A*0251							11					19							26						33				38	39					46			52	54										65	66		68				72				77									
A-	A*0252							11			15			20			23													38	39								52	54										65	66		68				72													
A-	A*0254							11					19				23				27									38	39					46				54								63		65	66		68								77									
A-	A*0255						10	11						20	21		23											36		38	39					46			52	54											66		68				72													
A-	A*025601~5602; A*9203							11						20			23							31						38	39		43			46			52	54											66		68				72										87			
A-	A*0257/84; A*9208							11					19				23													38	39					46			52	54										65	66						72				77									
A-	A*0258							11						20			23													38	39					46			52	54					59					65	66						72													
A-,A"Blank"	A*0260/64/88N; A*9205/14/47/51							11						20			23													38	39								52	54										65	66		68				72													
A-	A*0263							11						20			23													38	39					46			52						59					65	66			69													
A2/A19,A-	A*0265; A*9252	1						11						20						26						33					39					46			52	54						62			65	66						72			76									
A-	A*0276; A*9220							11									23													38	39					46			52	54										65	66		68				72													
A-	A*0277; A*9253							11						20			23													38						46				54										65	66		68				72													
A-	A*0278							11					19				23							31						38	39		43			46			52	54									64			68				72				77						87			
A-	A*0279							11					19				23														39					46			52	54										65	66		68				72				77									
A-	A*0280							11						20			23													38	39								52	54										65	66		68				72			76									
A-	A*0281; A*9224			3								17		20			23													38	39					46			52	54			58							65			68				72													99
A"Blank"	A*0282N							11						20			23													38						46			52	54										65	66		68				72													
A-	A*0287; A*9212											17		20			23													38	39	40				46			52	54			58							65			68				72													99
A-	A*0290							11						20			23													38	39					46			52	54			58						64	65			68				72													
A-	A*0299							11					19																	38	39					46	47		52	54										65	66		68				72				77									
A3,A"Blank",A-	A*03010101~010103/0103/0105/0107/0109/04/11N/13~14/17/20~21N/25~27/33/37/45~47/55	1						11						20										31										43			47		52	54	56	57							64								72			75						87			
A3	A*030102	1						11						20										31										43			47		52	54	56	57							64										75						87			
A3	A*030104	1						11						20										31													47		52	54	56	57							64								72			75									
A3,A"Blank",A-	A*030106/03N/15/28/39	1						11						20										31										43			47		52	54	56	57							64								72										87			
A3	A*030108	1												20										31										43			47		52	54	56	57															72			75									
A3,A-	A*030110/29/34	1						11						20																				43			47		52	54	56	57							64								72			75						87			
A3,A-	A*0302/31	1						11						20			23							31										43					52	54	56	57						63	64									75						87			
A3	A*0305	1						11						20										31							39			43			47		52	54	56							64								72			75						87			
A-	A*0306	1						11						20										31										43			47		52	54	56							64								72			75						87			
A-	A*0307	1						11						20			23							31										43					52	54	56	57							64								72			75						87			

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Name _____ Sample ID _____

A Locus

Reaction Results (mark positive locations)

Serology Equivalent	A Locus Allele Group	001	002	003	004	009	010	011	012	013	015	017	019	020	021	022	023	024	025	026	027	029	030	031	032	033	035	036	037	038	039	040	042	043	044	046	047	048	052	054	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	084	085	086	087	088	099
	Cut Off Value	25%	25%	15%	50%	65%	20%	30%	60%	100%	45%	25%	30%	15%	30%	80%	40%	70%	80%	40%	45%	20%	30%	12%	100%	85%	2%	20%	35%	65%	70%	25%	20%	25%	20%	35%	80%	20%	80%	20%	55%	80%	25%	35%	25%	45%	25%	80%	30%	27%	25%	55%	35%	80%	40%	25%	70%	80%	80%	25%	20%	15%	20%	22%	20%	15%	12%	23%	20%
A-	A*0308	1						11						20																				43			47		52	54	56	57	58						64								72			75							87		
A-	A*0309	1						11						20										31										43			47		52	54	56	57									66						72			75							87		
A-	A*0310	1						11						20			23							31							39			43					52	54	56						63	64										75							87		
A-	A*0312	1						11																31										43			47		52	54	56	57							64								72			75		77					87		
A-	A*0316							11						20										31										43			47		52	54		57							64								72			75							87		
A-	A*0318	1						11						20							27			31										43						54	56								64			67						74	75							87		
A-	A*0319	1						11						20										31										43		46	47		52	54	56	57							64								72										87		
A-	A*0322/38	1						11						20										31										43			47		52	54		57							64								72			75							87		
A-	A*0323	1						11						20										31													47		52	54	56	57							64	65							72			75									
A-	A*0324	1						11						20	21									31				36									47		52	54	56	57							64								72			75									
A-	A*0330	1						11	12					20										31													47		52	54	56	57							64								72			75									
A-	A*0332	1						11						20			23																	43					52	54	56	57						63											75			78				87		
A-	A*0335/44/51							11						20										31										43			47		52	54	56	57							64								72			75							87		
A"Blank"	A*0336N	1						11						20																				43			47		52	54	56	57															72			75									
A-	A*0340	1						11						20										31										43			47			54	56								64								72			75							87		
A-	A*0341	1												20																				43			47		52	54	56	57	58			61											72			75								88	
A-	A*0342	1						11						20						26				31		33					39			43					52	54								64								72			75							87		
A-	A*0343	1						11			15			20										31										43			47		52	54	56	57							64								72			75							87		
A-	A*0350	1						11						20										31										43			47		52	54	56	57							64						69					75							87		
A11,A"Blank",A-	A*110101~0106/0109/0201/0203~03/07/12/21N~22/29~30/32/37/41~42					9		11											25					31										43					52	54	56						63	64									74	75		77					87		
A11	A*110107	1				9		11											25					31										43					52	54	56						63	64									74	75		77					87		
A11	A*110108					9		11											25					31										43						54	56						63	64									74	75		77					87		
A11,A-	A*110110/05/13/16					9		11											25					31										43					52	54							63	64									74	75		77					87		
A11	A*110202					9													25					31										43					52	54	56						63										74	75		77							
A11	A*1104							11																31							39			43					52	54	56						63	64										75		77					87		
A-	A*1106					9		11											25					31										43					52	54	56						63			66						74	75		77					87		
A11	A*1108							11											25					31										43			47		52	54	56							64									74	75		77					87		
A-	A*1109					9		11											25					31										43					52	54	56						63	64										75		77					87		
A11	A*1110					9		11							21				25					31				36											52	54	56						63	64									74	75		77							
A-	A*1111					9		11											25			29		31															52	54	56						63	64									74	75		77							
A11	A*1114					9		11										24	25					31										43					52	54	56						63	64									74	75		77					87		
A11,A-	A*111501~1502/34							11																31										43						54	56						63	64									74	75		77					87		
A-	A*1117					9													25															43					52	54	56		58			61		63									74	75		77							
A-	A*1118					9		11											25															43					52	54	56							63			66						74	75		77					87		
A-	A*1119					9		11											25															43					52	54	56		58					63	64									74	75		77					87		
A-	A*1120					9		11											25					31										43			47		52	54	56						63	64									74	75		77					87		
A-	A*1123~2401/44							11											25					31										43					52	54	56							64									74	75		77					87		
A-	A*112402							11											25					31										43					52	54	56							64								72	74	75		77					87		
A-	A*1125							11											25					31										43			47		52	54	56							64								72	74	75		77					87		
A-	A*1126					9		11											25					31										43					52	54	56					62	63	64									74			77					87		
A-	A*1127							11													27			31							39			43						54	56						63	64										75		77					87		
A-	A*1131							11									23		25					31										43					52	54	56							64								72	74	75		77					87		
A-	A*1133	1				9		11											25					31										43					52	54							63	64									74	75		77					87		
A-	A*1135							11									23							31							39			43					52	54								64								72		75		77					87		
A-	A*1136					9		11											25					31										43					52	54	56						63	64									74			77					87		
A-	A*1138~39					9		11													27			31										43						54	56						63	64									74	75		77					87		
A-	A*1140					9													25															43					52	54	56		58			61		63									74	75		77						88	
A-	A*1143		2			9		11											25					31										43					52	54	56						63	64									74	75							87		

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Name _____ Sample ID _____

A Locus

Reaction Results (mark positive locations)

Serology Equivalent	A Locus Allele Group	001	002	003	004	009	010	011	012	013	015	017	019	020	021	022	023	024	025	026	027	029	030	031	032	033	035	036	037	038	039	040	042	043	044	046	047	048	052	054	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	084	085	086	087	088	099
Cut Off Value		25%	25%	15%	50%	65%	20%	30%	60%	100%	45%	25%	30%	15%	30%	80%	40%	70%	80%	40%	45%	20%	30%	12%	100%	85%	2%	20%	35%	65%	70%	25%	20%	25%	20%	35%	80%	20%	80%	20%	55%	80%	25%	35%	25%	45%	25%	80%	30%	27%	25%	55%	35%	80%	40%	25%	70%	80%	80%	25%	20%	15%	20%	22%	20%	15%	12%	23%	20%
A23,A-,A"Blank"	A*230101/0301~0302/05~07N/11N/16~21	1							12			17									27					33					39	40				46				54			58													72													
A-	A*2302	1							12			17									27					33					39	40				46				54			58										69																
A-	A*2304	1							12			17								26						33					39	40				46			52	54			58													72													
A"Blank"	A*2308N	1							12			17														33						40				46				54			58													72													
A-	A*2309	1										17									27					33					39	40		43		46				54			58													72													
A-	A*2310	1							12			17									27					33						40				46				54			58													72		74											
A-	A*2312	1							12			17									27					33					39	40				46				54																	72													
A-	A*2313	1							12			17									27			31		33					39	40				46				54																	72													
A-	A*2314	1							12			17									27					33					39	40				46				54	56		58																												
A-	A*2315								12			17									27					33					39	40				46				54			58													72													
A24,A"Blank",A-	A*24020101/0203/0205~0206/0210~0211/0213~0214/09N/11N/15/20~21/25~26/35~38/40N/45N/47~49/51/53/58/63~64/68~70/74/76/78~81/83N/86N/93/95/98	1							12			17					23				27										39	40				46				54	56		58						63																							
A24"Low"	A*24020102L	1							12			17					23				27										39	40				46				54	56		58						63																84					
A24,A-	A*240202/27/43								12			17					23				27										39	40				46				54	56		58						63																						
A24,A-,A"Blank"	A*240204/17/39/41/73/84N/90N/96	1							12			17					23				27										39	40								54	56		58						63																						
A24,A-	A*240207/0212/61	1							12			17					23				27										39					46				54	56		58						63																						
A24,A-	A*240208~0209/59/72/85/99	1							12			17									27										39	40				46				54	56		58						63																						
A24,A-	A*240215/0217/29/31	1										17					23				27										39	40				46				54	56		58						63																						
A24,A-	A*240216/1302/54/87/91/97	1							12			17					23				27										39	40				46				54	56		58																												
A-	A*240220	1							12			17					23				27										39	40				46					56		58						63																						
A2403	A*240301~0302/33	1							12			17					23														39	40				46			52	54	56		58						63																						
A24	A*2404	1							12								23				27										39					46				54	56		58				61		63																						
A24	A*2405	1							12			17					23				27										39	40				46				54			58						63																						
A24	A*2406	1							12			17					23				27										39	40				46				54	56		58											69																	
A24	A*2407	1							12			17					23				27			31							39	40				46				54	56								63																						
A24	A*2408	1										17					23				27										39	40				46				54	56		58						63		65																				99
A2403	A*2410	1				9			12			17					23		25													40				46			52	54	56		58						63											74										
A24	A*241301	1							12			17					23				27										39	40				46				54	56																72													
A24	A*2414	1							12			17					23				27										39	40				46				54	56		58						63					68																
A24/A3	A*2418	1							12			17																				40				46	47		52	54	56	57	58														72													
A9	A*2419	1						11	12								23				27			31							39					46				54	56								63	64																				
A9	A*2422	1							12			17					23														39	40				46			52	54	56		58																												
A24,A-	A*2423/75	1							12			17					23														39	40				46				54	56		58						63																						
A-	A*2424	1										17			21						27			31		33					39	40	42			46				54																	72													
A-	A*2428	1						11	12								23				27										39					46				54	56								63			66																		
A-	A*2430/34	1							12			17					23				27										39	40				46				54	56								63																						
A-	A*2432	1		3					12			17					23				27										39					46				54	56		58						63																						
A-	A*2442	1										17					23				27										39	40				46				54	56								63		65																				99
A-	A*2444	1						11	12								23				27										39					46				54	56		58						63	64																				
A-	A*2446	1				9			12			17					23				27											40				46				54	56		58						63											74										
A-	A*2450	1							12			17					23				27										39	40				46				54	56		58						63													77								
A-	A*2452	1							12			17					23				27										39	40				46				54	56		58	59					63																						
A-	A*2455	1							12			17					23				27											40				46				54	56		58						63										73													
A-	A*2456	1							12			17									27										39	40				46	47			54	56		58						63																						
A-	A*2457	1							12			17					23				27										39	40				46				54	56		58					62	63																						

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Reaction Results (mark positive locations)

Serology Equivalent	A Locus Allele Group	001	002	003	004	009	010	011	012	013	015	017	019	020	021	022	023	024	025	026	027	029	030	031	032	033	035	036	037	038	039	040	042	043	044	046	047	048	052	054	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	084	085	086	087	088	099
Cut Off Value		25%	25%	15%	50%	65%	20%	30%	60%	100%	45%	25%	30%	15%	30%	80%	40%	70%	80%	40%	45%	20%	30%	12%	100%	85%	2%	20%	35%	65%	70%	25%	20%	25%	20%	35%	80%	20%	80%	20%	55%	80%	25%	35%	25%	45%	25%	80%	30%	27%	25%	55%	35%	80%	40%	25%	70%	80%	80%	25%	20%	15%	20%	22%	20%	15%	12%	23%	20%
A"Blank"	A*2460N	1							12			17					23				27										39					46				54	56							63																							
A-	A*2462	1							12			17					23				27										39	40								54	56		58					63														76									
A-	A*2466	1							12		15	17					23				27										39	40								54	56		58					63																							
A-	A*2467	1										17			21		23				27										39	40	42			46				54	56		58					63																							
A-	A*2471	1							12			17									27					33					39	40				46				54	56		58					63																							
A-	A*2477	1										17					23				27										39	40		43		46				54	56		58					63																							
A-	A*2482	1	2						12			17					23				27										39	40				46				54	56		58					63																							
A-	A*2488	1							12			17		20			23				27										39	40				46				54	56		58					63																							
A-	A*2489	1						11									23				27										39					46				54	56							63		65	66																				
A-	A*2492	1							12			17					23				27										39	40				46				54	56		58					63													75											
A-	A*2494	1							12			17					23														39	40				46			52	54		58															72													
A25,A-	A*250101/05/07	1		3								17			21	22			25				30										42						52	54		58											69					74		76	77								
A25	A*250102	1										17			21	22			25				30										42						52	54		58											69					74		76	77								
A10	A*2502	1		3								17			21	22			25				30	31									42						52	54													69					74		76	77								
A-	A*2503	1		3								17		20	21	22			25				30										42						52	54		58											69					74		76									
A-	A*2504	1		3		9						17			21	22			25				30										42						52	54		58					63												74		76	77								
A-	A*2506	1		3								17			21	22							30								39		42						52	54		58											69							76	77								
A-	A*2508	1		3								17			21				25				30										42						52	54		58											69					74		76	77								
A26,A-,A10	A*260101/0103~0104/0106~0108/ 10/15/17/23~24/26/32/37~38	1													21	22			25				30																52	54		58				61								69					74		76	77						88	
A26	A*260102	1													21	22			25				30																52	54		58											69					74		76	77						88	
A26,A-	A*260105/27	1													21	22			25				30																52	54		58				61												74		76	77						88	
A26,A-	A*2602/40	1													21	22			25																				52	54		58				61								69					74			77						88	
A26,A-	A*2603/21/30	1					10	11							21	22			25				30					36											52	54										66			69					74		76	77								
A26	A*2604	1													21	22							30																52	54		58				61								69							76	77						88	
A26	A*2605	1													21	22			25				30																52	54		58											69		71			74		76	77								
A26	A*2606	1					10	11							21	22			25									36											52	54										66			69					74			77								
A26	A*260701~0702	1														22			25				30																52	54		58				61			65				69					74		76	77								
A26	A*2608	1				9									21	22			25				30																52	54		58				61		63										74		76	77						88	
A26	A*2609	1													21	22							30								39								52	54		58				61								69							76	77						88	
A"Blank",A-	A*2611N~12/28	1													21				25				30																52	54		58				61								69					74		76	77						88	
A-	A*2613	1													21	22			25				30	31															52	54						61								69					74		76	77								
A-	A*2614	1													21				25				30														47		52	54		58				61								69					74		76	77						88	
A-	A*2616/35	1													21	22			25				30																52	54		58				61								69					74		76							88	
A-	A*2618	1													21				25	26			30			33													52	54		58				61								69					74		76	77						88	
A-	A*2619	1			4											22			25				30	31										43					52	54						61								69					74		76	77								
A-	A*2620	1												20	21	22			25				30																52	54		58				61								69					74		76							88	
A-	A*2622	1													21	22			25				30																52	54		58				61						68	69					74		76	77						88	
A"Blank"	A*2625N	1													21	22			25				30																52	54		58				61								69					74		76	77								
A-	A*2629	1													21	22					27		30																	54		58				61								69					74		76	77						88	
A-	A*2631	1														22			25				30																52	54		58				61								69					74		76	77						88	
A-	A*2633	1													21	22			25				30																52	54														69					74		76	77								
A-	A*2634	1													21	22							30															48	52	54		58				61								69							76	77						88	
A-	A*2636	1													21	22			25				30																52	54														69					74		76	77						88	
A29,A"Blank",A-	A*29010101~0201/04/06/08N/10/ 12/16~17	1	2																	26		29		31		33					39								52	54						61	62									72													
A29	A*290202	1	2																	26		29		31		33													52	54						61	62									72													
A29	A*290203	1																		26		29		31		33					39								52	54						61	62									72													
A-	A*2903	1	2																		27	29		31		33					39									54						61	62									72													
A-	A*2905	1	2																			29		31							39						47		52	54						61	62	63																					
A-	A*2907	1	2																	26		29		31		33					39								52	54						61										72													

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Name _____ Sample ID _____

A Locus

Reaction Results (mark positive locations)

Serology Equivalent	A Locus Allele Group	001	002	003	004	009	010	011	012	013	015	017	019	020	021	022	023	024	025	026	027	029	030	031	032	033	035	036	037	038	039	040	042	043	044	046	047	048	052	054	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	084	085	086	087	088	099
Cut Off Value		25%	25%	15%	50%	65%	20%	30%	60%	100%	45%	25%	30%	15%	30%	80%	40%	70%	80%	40%	45%	20%	30%	12%	100%	85%	2%	20%	35%	65%	70%	25%	20%	25%	20%	35%	80%	20%	80%	20%	55%	80%	25%	35%	25%	45%	25%	80%	30%	27%	25%	55%	35%	80%	40%	25%	70%	80%	80%	25%	20%	15%	20%	22%	20%	15%	12%	23%	20%
A-	A*2909	1	2																	26		29		31		33					39								52	54	56					61	62										72												
A-	A*2911/15		2																	26		29		31		33					39								52	54						61	62										72												
A-	A*2913	1	2	3								17								26		29		31		33					39								52	54							62										72												
A-	A*2914	1	2		4															26				31		33					39			43					52	54						61	62										72												
A-	A*2918	1	2																	26				31		33					39			43					52	54						61	62										72												
A-	A*2919	1	2					11												26		29				33					39								52	54							62				66						72												
A30,A-	A*300101~0102/15/18~19/23~24	1			4			11			15													31							39			43					52	54									64								72			75							87		
A30,A-	A*300201~0202/10/12	1			4						15							24													39			43					52	54			58												71	72			75								
A30	A*300203/03	1									15							24													39			43					52	54			58												71	72			75								
A30	A*300204	1			4													24													39			43					52	54			58												71	72			75								
A30,A-	A*3004~06	1			4						15						23														39			43					52	54			58										69		71				75								
A-	A*3007	1			4				12		15							24													39								52	54			58												71	72			75								
A-	A*3008	1			4			11			15		19											31							39			43					52	54									64									72			75		77					87		
A-	A*3009	1			4						15									26						33					39			43					52	54			58												71	72			75								
A30	A*301101~1102	1						11			15													31							39			43					52	54									64									72			75							87		
A-	A*3013	1			4			11			15							24													39			43					52	54											66						72			75							87		
A-	A*3014L	1			4			11			15													31										43					52	54									64									72			75							87		
A-	A*3016	1			4			11			15													31							39			43					52	54											66						72			75							87		
A-	A*3017	1			4			11			15						23							31							39			43					52	54									64				69					75							87		
A-	A*3020	1			4			11			15													31							39			43					52	54																		72			75								
A-	A*3022	1									15							24													39								52				58								65						71	72			75								
A-	A*3025	1			4						15							24						31							39			43					52	54																	71	72			75								
A-	A*3026	1			4			11																31							39			43					52	54									64									72			75							87		
A"Blank"	A*3027N	1			4						15																				39			43					52	54			58												71				75								
A-	A*3028	1			4						15							24													39			43					52	54			58												71	72											
A31,A-,A"Blank"	A*310102/09/13~16/20/23	1	2		4			11												26						33					39			43					52	54							62										72				76		78				87		
A31,A-	A*310103/19		2		4			11												26						33					39			43					52	54							62										72				76		78				87		
A-	A*3102	1	2		4			11												26						33					39			43					52	54							62										72				76		78						
A-,A31	A*3103~04	1	2		4			11												26						33					39			43					52	54																		72			75			78				87		
A31	A*3105	1	2		4			11													27					33					39			43						54							62										72				76		78				87		
A-	A*3106	1	2		4			11												26						33					39			43					52	54							62										72						78				87		
A-	A*3107/10	1	2		4							17								26						33					39	40		43					52	54			58				62										72				76								
A-	A*3108	1	2						12			17								26						33					39	40							52	54			58				62										72				76								
A-	A*3111	1	2		4			11												26						33								43						54							62										72				76		78				87		
A-	A*3112	1	2		4			11												26						33					39			43					52	54																		72				76		78				87		
A-	A*3117	1	2		4			11												26						33					39			43					52	54							62										72				76						87		
A-	A*3118	1	2		4			11																		33					39			43						54							62										72				76		78				87		
A-	A*3121	1			4			11						20						26						33					39			43					52	54							62										72				76		78				87		
A-	A*3122	1	2					11												26						33					39								52	54							62										72				76		78				87		
A-	A*3124		2		4	9		11											25														43					52	54	56						62	63											74		76		78				87		
A-	A*3125	1	2		4			11												26						33								43					52	54							62										72				76		78				87		
A32,A-	A*320101~0102/05/12/14/16/18	1		3								17		20						26						33					39			43					52	54			58				62										72				76								
A32	A*320103	1		3								17		20																	39			43					52	54			58				62										72				76								
A32	A*3202	1		3								17		20			23														39			43					52	54			58				62	63													76								
A-	A*3203	1										17		20						26						33					39	40		43					52	54			58				62										72				76								
A-	A*3204	1		3								17		20																				43			47		52	54	56	57	58														72			75								
A-	A*3206	1		3								17		20			23														39			43					52	54			58				62										72				76								
A-	A*3207	1		3								17								26						33					39			43					52	54			58				62										72				76								
A-	A*3208	1		3								17		20						26						33					39			43					52	54							62										72				76								
A-,A"Blank"	A*3209/19N	1		3								17		20												33					39			43						54			58				62										72				76								

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Name _____ Sample ID _____

A Locus

Reaction Results (mark positive locations)

Serology Equivalent	A Locus Allele Group	001	002	003	004	009	010	011	012	013	015	017	019	020	021	022	023	024	025	026	027	029	030	031	032	033	035	036	037	038	039	040	042	043	044	046	047	048	052	054	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	084	085	086	087	088	099
	Cut Off Value	25%	25%	15%	50%	65%	20%	30%	60%	100%	45%	25%	30%	15%	30%	80%	40%	70%	80%	40%	45%	20%	30%	12%	100%	85%	2%	20%	35%	65%	70%	25%	20%	25%	20%	35%	80%	20%	80%	20%	55%	80%	25%	35%	25%	45%	25%	80%	30%	27%	25%	55%	35%	80%	40%	25%	70%	80%	80%	25%	20%	15%	20%	22%	20%	15%	12%	23%	20%
A-	A*3210	1		3								17		20																	39			43			47		52	54			58				62						69						76									
A-	A*3211Q	1		3								17		20						26						33								43					52	54			58				62									72				76								
A-	A*3213	1		3								17		20							27					33					39			43						54			58				62									72				76								
A-	A*3215	1		3								17		20	21					26						33					39		42						52	54			58				62									72				76								
A-	A*3217	1		3								17		20						26				31		33					39			43					52	54							62									72				76								
A33,A-	A*330101~0301/0303~06/12/14~15/20/23/25	1	2					11							21					26						33		36			39								52	54							62									72				76		78						
A33	A*330302	1	2					11							21					26								36			39								52	54							62									72				76		78						
A-	A*3307	1	2					11							21													36			39								52	54							62									72				76		78						
A-	A*3308~09	1	2					11												26						33					39								52	54							62			65						72				76		78						
A-	A*3310	1	2					11							21						27					33		36			39								54								62									72				76		78						
A-	A*3311	1	2					11							21					26						33		36			39								52	54			58				62		64							72				76								
A-	A*3313	1	2												21					26						33					39								52	54			58			61	62									72				76							88	
A-	A*3316		2					11							21					26						33		36			39								52	54							62									72				76		78						
A-	A*3317	1	2												21					26						33					39								52	54							62									72				76								
A-	A*3318	1	2					11							21					26						33		36			39								52	54							62									72						78						
A-	A*3319	1	2					11							21		23				27							36			39					46				54	56								63													78						
A-	A*3321	1	2					11												26						33					39								52	54							62									72				76		78						
A-	A*3322	1	2					11							21					26						33		36			39								52	54												68				72				76		78						
A-	A*3324	1	2				10	11							21					26						33		36			39								52	54							62				66					72				76								
A34,A-	A*340101/05	1						11								22							30	31				36			39								52	54									64				69	70					76	77							
A34	A*340102	1														22							30	31				36			39								52	54									64				69	70					76	77							
A34	A*3402/04	1						11							21	22								31				36			39								52	54									64									72			75		77						
A-	A*3403	1						11							21									31				36			39						47		52	54									64									72			75		77						
A-	A*3406	1						11							21					26			30	31		33		36			39								52	54									64									72				76	77							
A-	A*3407	1						11							21	22												36			39								52	54									64									72			75		77						
A-	A*3408	1						11						20	21	22								31				36			39								52	54									64									72			75								
A36	A*3601													20																	39			43					52		56		58			61						67						75									
A-	A*3602													20																				43					52		56	57	58			61						67						75									
A36	A*3603													20																	39			43					52		56		58			61						67														
A-	A*3604													20					25															43					52		56		58			61						67					74	75								
A43	A*4301	1														22			25			29	30																52	54			58			61							69					74		76	77					88	
A66,A-	A*6601/04/08	1						11							21	22			25				30	31				36											52	54									64						69					74		76	77						
A66	A*6602	1						11							21	22							30	31				36											52	54									64						69				73			76	77						
A10	A*6603	1						11							21	22							30					36											52	54			58						64						69				73			76	77						
A-	A*6605	1						11							21	22			25				30					36											52	54			58						64						69					74		76	77						
A-	A*6606	1						11							21				25				30	31				36											52	54									64									72			74		76	77						
A-	A*6607	1						11							21	22							30	31				36												54									64						69					74		76	77						
A-	A*6609	1						11							21	22			25				30	31				36											52	54									64				68	69						74		76	77						
A-	A*6610	1						11							21	22					27		30	31				36												54									64						69					74		76	77						
A68,A-	A*680101/0103~0105/0107/22/25/35/43							11							21		23							31				36		38	39								52	54							62		64					69								77						
A68,A-,A"Blank"	A*680102/0106/07/11N/17/21/32~33/38/47							11							21		23							31				36		38	39				44				52	54							62		64					69														
A68,A"Blank",A-	A*68020101/020103~0202/18N/44							11							21		23							31				36		38	39					46			52	54					60				64						69														
A68	A*68020102																23													38	39					46			52																69														
A28	A*680301~0302							11							21		23											36		38	39				44				52	54			58				62		64					69														
A68	A*6804							11							21		23											36		38	39								52	54							62							69								77	78						
A68,A-	A*6805/20						10	11							21		23											36		38	39				44				52	54							62				66			69														
A-	A*6806							11			15				21		23							31				36		38	39				44				52	54							62		64					69														

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A Locus

Reaction Results (mark positive locations)

Serology Equivalent	A Locus Allele Group	001	002	003	004	009	010	011	012	013	015	017	019	020	021	022	023	024	025	026	027	029	030	031	032	033	035	036	037	038	039	040	042	043	044	046	047	048	052	054	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	084	085	086	087	088	099
	Cut Off Value	25%	25%	15%	50%	65%	20%	30%	60%	100%	45%	25%	30%	15%	30%	80%	40%	70%	80%	40%	45%	20%	30%	12%	100%	85%	2%	20%	35%	65%	70%	25%	20%	25%	20%	35%	80%	20%	80%	20%	55%	80%	25%	35%	25%	45%	25%	80%	30%	27%	25%	55%	35%	80%	40%	25%	70%	80%	80%	25%	20%	15%	20%	22%	20%	15%	12%	23%	20%
A68	A*680801							11							21		23							31				36		38	39								52	54							62		64													77							
A68	A*680802							11							21		23							31				36		38	39				44				52	54							62		64							72													
A-	A*6809							11							21		23							31				36		38	39				44				52	54							62	63	64																			
A-	A*6810/14							11									23							31						38	39								52	54							62		64					69							77					87		
A28	A*6812							11							21		23							31				36			39				44				52	54							62		64					69													
A-	A*6813							11									23							31						38	39								52	54							62		64					69							77							
A-	A*6815						10	11							21		23											36		38	39					46			52	54					60						66			69													
A68,A-	A*6816/41							11							21									31				36		38	39				44				52	54							62		64					69													
A-	A*6819							11							21		23							31				36		38					44				52	54		57					62		64					69													
A-	A*6823							11							21		23							31				36		38	39				44				52	54									64					69													
A-	A*6824							11							21		23											36		38	39				44				52	54							62		64					69													
A-	A*6826							11							21		23				27			31				36		38	39									54							62	63	64												77							
A-	A*6827							11							21		23							31				36		38	39					46			52	54									64					69							77							
A-	A*6828							11							21		23							31				36		38	39					46			52	54					60				64																			
A-	A*6829		2					11							21		23							31				36		38	39								52	54							62		64					69													
A-	A*6830							11									23							31						38	39				44				52	54							62		64	65				69													
A-	A*6831							11							21		23											36		38	39					46			52	54			58		60				64					69													
A-	A*6834							11							21		23							31				36		38						46			52	54					60				64					69													
A-	A*6836											17			21		23							31						38	39	40	42		44				52	54							62							69													
A-	A*6837														21		23							31				36		38	39				44				52	54							62		64					69													
A-	A*6839							11							21		23							31				36		38	39								52	54					60		62		64					69													
A-	A*6840							11							21		23											36		38	39					46			52	54					60				64					69													
A-	A*6842							11							21									31				36		38	39						47		52	54							62		64					69							77							
A-	A*6845							11							21		23							31				36		38	39								52	54							62		64					69													
A-	A*6846														21		23							31						38	39				44				52	54							62							69													
A-	A*6848							11							21		23							31				36			39					46			52	54					60				64					69													
A69	A*6901							11							21		23							31				36		38	39					46			52	54									64				68				72				77							
A74,A-	A*7401~02/09/11	1						11						20						26						33					39			43					52	54			58				62		64							72				76					87		
A74,A"Blank"	A*7403/14N	1												20						26						33					39			43					52	54			58				62		64							72				76					87		
A-	A*7404	1						11						20						26						33					39								52	54			58				62		64	65							72				76							
A-	A*7405	1						11						20						26						33					39			43					52	54							62										72				76					87		
A74	A*7406	1						11						20						26						33					39			43					52	54							62				66				72				76					87		
A-	A*7407	1						11						20						26						33					39			43					52	54							62										72				76		78			87		
A-	A*7408	1						11						20																	39			43					52	54			58				62		64							72				76					87		
A-	A*7410	1												20						26						33					39			43					52	54			58			61	62									72				76						88	
A"Blank"	A*7412N	1						11						20						26						33					39			43					52	54			58						64							72				76					87		
A-	A*7413	1						11						20						26				31		33					39			43					52	54							62		64							72				76					87		
A80	A*8001	1												20				24			27								37										54	56																			73		75							88	
A-	A*9201							11						20			23		25											38						46			52	54										65	66		68				72		74										
A-	A*9202							11						20			23													38	39					46			52	54				59						65	66			69													
A-	A*9206							11					19																	38	39					46			52	54										65	66		68				72				77							
A-	A*9216													20			23													38	39					46			52	54										65			68				72													
A-	A*9217							11						20		22														38	39								52	54										65	66		68	69							76							
A-	A*9222							11									23													38	39					46			52	54					60					65	66			69													
A-	A*9227							11					19				23													38						46			52	54										65	66		68				72				77							
A-	A*9229								12			17	19				23													38	39	40				46			52	54			58										68				72				77							
A-	A*9235	1						11						20		22			25				30															52	54										65	66			69					74		76							
A-	A*9236											17		20			23													38	39	40				46			52	54			58							65			68	69													99
A-	A*9242							11					19				23													38	39					46			52	54								63		65	66		68								77							
A-	A*9243							11									23													38	39					46			52	54					60						66		68				72											

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LABType® SSO Class I A Locus Typing Test, Lot #010

Name _____ Sample ID _____

A Locus

Serology Equivalent	A Locus Allele Group	001	002	003	004	009	010	011	012	013	015	017	019	020	021	022	023	024	025	026	027	029	030	031	032	033	035	036	037	038	039	040	042	043	044	046	047	048	052	054	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	084	085	086	087	088	099
Reaction Results (mark positive locations)																																																																								
Cut Off Value		25%	25%	15%	50%	65%	20%	30%	60%	100%	45%	25%	30%	15%	30%	80%	40%	70%	80%	40%	45%	20%	30%	12%	100%	85%	2%	20%	35%	65%	70%	25%	20%	25%	20%	35%	80%	20%	80%	20%	55%	80%	25%	35%	25%	45%	25%	80%	30%	27%	25%	55%	35%	80%	40%	25%	70%	80%	80%	25%	20%	15%	20%	22%	20%	15%	12%	23%	20%
A-	A*9246													20			23													38	39					46			52	54			58			61				65			68				72												
A-	A*9254							11					19				23		25											38						46			52					59						65	66			69					74			77				86			
A-	A*9256							11						20			23													38	39					46			52	54										65	66						72			75										
A-	A*9269							11					19				23													38	39			43		46			52	54												66		68				72					77					87		
A-	A*9271							11						20		22														38	39					46			52	54										65	66		68																	

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Notes:

ONE LAMBDA, INC.

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LABType™ SSO Class I B Locus Typing Test, Lot #020

Name

☐ Patient
☐ Donor

☐ Male
☐ Female

Race

ABO/Rh

Sample I.D.

Birthdate

Relationship to Patient

Disease

DNA Extraction Method

Bead Mix Exp. Date

DNA Concentration

Bead Mix Lot#

Results

Taq Lot #

Primer Mix Lot#

D-mix Lot #/Batch #

SAPE Solution Lot#

Comments:

LABScan™ 100 Serial#

Raw Data File ID

Photo Documentation

Test Performed by

Date

Read by

Date

Reviewed by

Date

The allele nomenclature includes the HLA alleles listed in the July 2020 update of the IMGT/HLA database release 3.41.0 (Robinson J, et al., "IMGT/HLA and IMGT/MHC: sequence databases for the study of the major histocompatibility complex" Nucleic Acids Research (2003), 31, 311-314). Complete update information is located at www.ebi.ac.uk/imgt/hla/.

Revision summary: July 2020 nomenclature update based on IMGT/HLA 3.41.0.

(Bead 20) Bw6 (w/o B*07:02:67; B*07:02:78; B*07:79; B*07:179; B*07:192; B*07:195; B*07:244; B*07:257; B*08:29; B*08:34; B*08:36; B*08:131; B*08:136; B*08:139; B*08:153; B*08:157; B*08:174; B*08:216; B*14:01:05; B*14:02:05; B*14:02:08; B*14:30; B*14:77; B*15:01:21; B*15:01:27; B*15:01:49; B*15:05:03; B*15:277; B*15:311; B*15:430; B*15:521; B*18:01:21; B*18:147; B*18:179; B*18:190; B*35:01:39; B*35:01:52; B*35:02:03; B*35:02:09; B*35:02:14; B*35:222; B*35:248; B*35:293; B*35:299; B*35:338; B*35:424; B*39:01:15; B*39:06:05; B*39:24:02; B*39:104; B*40:76; B*40:135; B*40:281; B*40:306; B*40:335; B*40:344; B*40:400; B*40:423; B*41:05; B*41:26; B*42:22; B*45:01:09; B*46:16; B*46:66; B*46:75; B*55:01:13; B*55:73);
B*07:02:01:01−02:66/02:68−02:77/02:79−26/28−35/37:01−37:02/39−78/80/82−148/150−178/181N−191/193−194/196−218/220−235/237−243/245−256/258−272N/274−407;
B*08:01:01:01−01:56/04:01−28/30N−33/35/37−51/53:01−77/79−116/118−125/127−130/132−135/137−138/140−152/154−156/158−173/175−215N/217−254/256−262; B*13:09/39/67;
B*14:01:01:01−01:04/01:06−02:04/02:06−02:07/02:09−29/31−76N/78N−90;
B*15:01:01:01−01:20/01:22−01:26/01:28−01:48/01:50−05:02/06−12:03/14−15:01:02/18:01:01−21:01:02/25:01:01−35/37−42/44−66/68−86/88/90−94N/96−114/116−156/158−161/163−167/169−176/178−195/197:01−207/209N−215/217−221/223−229/231−253/255/257−267/269−272N/274−276/278−310/312−338/340−355/357−360/363:01−395/397−402/404−407/409−410/412−417/419−422/425−429/431−441/443−445/447−461/463N−480/482−499/501−504/506−515/517−520Q/522/524−531/533−545/547−549N/551−554/556−568; B*18:01:01:01−01:20/01:22−08/10−53/55−66/68−135:01:02/137−146/148−178/180−189/191−193;
B*27:08/12:01:01−12:01:03/18/26/33/40/42/44/89/153/204; B*35:01:01:01−01:38/01:40−01:51/01:53−02:02/02:04−02:08/02:10−02:13/02:15−221/223−247/249−292/294−298/300−328/330−337:02/339−423/425−470/472−489;
B*37:05/11/37/67; B*38:156−159; B*39:01:01:01−01:14/01:16−06:04/06:06−24:01/25N−103/105−168;
B*40:01:01−12:02/14:01−18/20:01:01−46/48−75/77−95/97−108/111−116/118N−134/136−156/158−187/189−200/202−280/282−291N/293−305/307−334/336−339/341−343/345N−393/395−399N/401−422/424−462;
B*41:01:01:01−04/06−25/27−45N/47−59/61−66; B*42:01:01:01−21/23−28; B*44:09/46:01−46:02/75/90/129/131/254/277; B*45:01:01:01−01:08/01:10−15/17−25; B*46:01:01:01−65/67−74/76−81; B*47:02;
B*48:01:01:01−17/19−50; B*50:01:01:01−70; B*54:01:01:01−11/13−41; B*55:01:01:01−01:12/01:14−72/74−89N/91−102/104−109; B*56:01:01:01−06/08−20:02/22−45/47−64/66−74; B*57:12; B*58:64; B*67:01:01−07;
B*73:01:01:01−02; B*78:01:01:02−10; B*81:01:01:01−10; B*82:01:01:01−04; B*83:01

Allele sequences are obtained from the IMGT database. Updates, including modifications to allele sequences may alter bead specificity.

B*13:01:01:06, B*15:01:01:38, B*35:01:01:10, B*35:01:01:46, B*38:02:02:02, B*46:77, B*55:01:01:17, B*58:01:01:02 are not amplified by primers for exon 2. B*07:02:01:22, B*07:02:37, B*07:281, B*07:303:01, B*07:386N, B*08:104, B*08:214N, B*14:79N, B*27:73, B*27:188, B*35:01:62, B*35:03:01:07, B*35:127, B*35:369, B*39:01:21, B*39:136, B*40:01:29, B*40:139, B*40:206, B*40:274, B*40:438N, B*44:99, B*44:193, B*50:54, B*51:186, B*53:41, B*55:100, B*57:21, B*57:74 are not amplified for exon 3. C*06:02:01:15, C*07:01:01:86, C*12:03:01:04 are amplified in Exon 3. The following alleles have mismatches with primers in this kit, and their amplifiability has not been determined: B*07:02:01:18, B*14:83, B*15:01:01:36, B*15:01:57, B*15:565, B*27:05:02:04Q, B*27:05:05, B*27:205, B*39:06:02:04, B*40:375, B*44:02:33, B*45:03, B*49:30, B*53:01:01:08

Beads (27, 39, 56, 60, 63, 71, 83, 89, 90): Typing results for a sample having positive reaction with these beads may also include C*06:02:01:15.

Beads (27, 39, 56, 60, 63, 71, 83, 89, 90): Typing results for a sample having positive reaction with these beads may also include C*12:03:01:04.

Beads (39, 56, 71, 80, 86, 90): Typing results for a sample having positive reaction with these beads may also include C*07:01:01:86.

Beads 3, 18 and 42: Bw4 (w/o B*07:81; B*08:52; B*13:12:02; B*13:28; B*15:87, B*15:481; B*15:555; B*18:67; B*27:05:11; B*27:05:37; B*27:49; B*27:53; B*27:116; B*27:122; B*27:156; B*27:158; B*27:165; B*27:169; B*27:175; B*27:202; B*27:213; B*37:01:02; B*37:14; B*37:24; B*37:58; B*38:01:13; B*38:41; B*38:67; B*38:76; B*40:109; B*40:292; B*40:394; B*44:02:45; B*44:02:50; B*44:03:49; B*44:05:03; B*44:11; B*44:50:02; B*44:127; B*44:152; B*44:170; B*44:196; B*44:227; B*44:454; B*44:455; B*44:458; B*47:03; B*48:18; B*49:67; B*51:01:08; B*51:01:40; B*51:01:43; B*51:50; B*51:185; B*51:247; B*52:01:04; B*52:01:28; B*52:01:29; B*52:09:01; B*52:09:02; B*52:68; B*53:01:18; B*53:05:01; B*53:05:02; B*53:16; B*53:33; B*57:01:38; B*57:04:03; B*57:38; B*57:60; B*58:75; B*58:96)

Not all alleles were directly tested. Untested alleles were predicted and, therefore, may cause false reactions. Refer to 'Nomenclature List' for the list of tested alleles.

Serological equivalent for alleles are based on the HLA Dictionary (S.G.Marsh, et al.: "Nomenclature for factors of the HLA system, 2010," Tissue Antigens (2010) 75:291-455)

The allele specificity for some beads include alleles with unsequenced regions at the target site. (Sequence information is available at www.ebi.ac.uk/imgt/hla/.) For these alleles, the published sequence from the most closely related allele is used as reference for the unsequenced regions. The reference allele provides the most likely prediction of the unsequenced regions. There may be a disparity between the predicted and newly sequenced information, which may alter the allele specificity of a bead Allele specificity information will be updated as new sequence information is available.

This product is intended for low resolution HLA typing results. Typing results outside this specification may produce ambiguities that require additional testing to resolve.

The following alleles are not included in this kit: None

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LABType™ SSO Class I B Locus Typing Test, Lot #020

Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)|																																																																																																							
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent|**Allele Group**|																																																																																																						
P.C.	Positive Control													13																			32																																																																						
N.C.	Negative Control																																			35																																																																			
B7, B-, B"Blank"	B*07:02:01:01~02:01:21/02:01:23~02:01:69/02:05~02:07/02:09~02:10/02:12~02:14/02:16~02:21/02:24~02:25/02:27~02:29/02:31/02:33/02:35/02:40~02:43/02:45/02:49/02:51~02:53/02:55~02:59/02:61~02:66/02:68~02:69/02:72~02:73/02:75~02:76/02:79/10/15/21~23/30/35/39/44N~46/49N/52/57~59/61~62/67N~68:03/73~76/82~83/87~89/92~93/98~99/102~104/106/108~109/111N/113/117/120~121/126/128~130/136:01~136:02/141~142/145/150/152/156/158~161N/167N~173/185/188~191/200/203/205/208/211~212/215~217/221/224/229:02~231N/233/238/240~241/245/250/252~254/256/265/267/271~272N/275~277/280/282/285N~286/291~292/294~295/297~298/308~309/311~312/315N/318N~319/321~323/326/328~330N/334/336~339/341~342/344~345/347/354~355/362/364/366/369~375/377/379/381~382/384~385/390~394/396~397/401~406	1							8		10										20			23	24												37		39		41					46																															73		75			78											89						95					
B7, B-, B"Blank"	B*07:02:01:22/02:37/281/303:01/386N	1							8		10										20			23	24												37																																										75																										
B7, B-	B*07:02:02/02:36/144/320	1							8		10										20			23	24												37				41					46																															73		75			78											89						95					
B7	B*07:02:03	1							8		10										20			23	24												37		39		41			44		46																															73		75			78											89						95					
B7, B-	B*07:02:04/02:32/02:80/101/119/127	1									10										20			23	24												37		39		41					46																															73		75			78											89						95					
B7, B-	B*07:02:08/148/331	1							8		10										20				24												37		39		41					46																															73		75			78											89						95					
B7	B*07:02:11	1							8		10										20			23	24												37		39		41					46		48																													73		75			78											89						95					
B7, B"Blank", B-	B*07:02:15/02:44/135N/288~289/360Q	1							8		10										20			23	24												37		39		41					46																																	75			78											89						95					
B7, B-	B*07:02:22/02:81/70~71/114/143/184/186/194/296/299/310/313/348								8		10										20			23	24												37		39		41					46																															73		75			78											89						95					
B7, B-, B"Blank"	B*07:02:23/42/107/122/139:01~139:02/165~166/305/343N/367	1							8		10										20			23	24												37		39		41					46																															73		75			78											89											
B7, B-	B*07:02:26/66/178	1							8		10										20			23	24												37		39		41																																				73		75			78											89						95					
B7, B-, B"Blank"	B*07:02:30/124/251N/361	1							8		10										20			23	24												37		39		41																																				73		75			78																	95					
B7	B*07:02:34	1					6		8		10										20			23	24												37		39		41					46																															73		75			78											89						95					
B7, B-, B"Blank"	B*07:02:38/02:46/02:74/17/96:01~96:02/118/175/182N/260/284/287/302/314/335/376	1							8		10										20			23	24												37		39							46																															73		75			78											89						95					
B7, B-	B*07:02:39/02:48/18:01/95/157/196/198~199/303:02/307/350/380/398	1							8		10										20			23	24												37		39		41					46																															73		75														89						95					
B7	B*07:02:47	1							8		10										20			23													37		39		41					46																															73		75			78											89						95					
B7, B-, B"Blank"	B*07:02:50/02:70/02:77/63/133/274/316N	1							8		10										20																37		39		41					46																															73		75			78											89						95					
B7, B-	B*07:02:54/02:71/41/177/234/263/268	1							8		10										20			23	24														39		41					46																															73		75			78											89						95					
B7, B-	B*07:02:60/242	1							8		10										20			23	24												37		39		41					46																															73					78											89						95					
B7	B*07:02:67	1							8		10													23	24												37		39		41					46																															73		75			78											89						95	96				
B7, B-	B*07:02:78/79/179/192/195/244/257	1							8		10													23	24												37		39		41					46																															73		75			78											89						95					
B703	B*07:03	1	2						8		10										20				24												37		39		41					46																															73					78											89						95					
B7	B*07:04:01~04:02	1							8		10										20			23	24												37		39		41										51																															73		75			78											89						95					
B7, B-, B"Blank"	B*07:05:01:01~05:01:04/05:05/05:07~05:08/05:10~06:05/90/97/105/112/138/176/201N/213/249/262/283/293/304/317/324/340/353/356~357/368/387/389/395/399	1							8		10				14						20			23	24												37		39							46						52																													73		75			78											89						95					
B7, B-	B*07:05:02/333	1							8		10				14						20																37		39							46						52																													73		75			78											89						95					
B7	B*07:05:03	1							8		10				14						20			23	24												37		39							46		48				52																													73		75			78											89						95					
B7	B*07:05:04	1							8		10				14						20			23	24												37		39					44		46						52																													73		75			78											89						95					
B7, B-	B*07:05:06/264	1									10				14						20			23	24												37		39							46						52																													73		75			78											89						95					
B7, B-	B*07:05:09/258	1							8		10				14						20			23	24												37									46						52																													73		75			78											89						95					
B7	B*07:07:01/07:03	1							8		10										20			23	24												37		39		41					46																															73		75												86			89		91				95					

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LABType™ SSO Class I B Locus Typing Test, Lot #020

Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																							
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																						
B7	B*07:07:02	1							8		10										20			23	24													37		39		41					46																											73		75											86			89						95					
B7	B*07:08:01	1							8		10									19	20				24													37		39		41					46																											73					78											89						95					
B7	B*07:08:02	1							8		10									19	20				24													37		39		41			44		46																											73					78											89						95					
B7, B-	B*07:09:01~09:02/11/237	1							8		10										20			23	24													37		39							46																											73		75			78										87		89						95					
B-	B*07:100	1							8		10										20			23	24			27										37		39		41				45															60											71				75			78											89											
B-	B*07:110	1							8		10										20			23														37		39		41					46																											73					78				82							89						95					
B-	B*07:115/246	1							8		10										20			23	24													37		39							46																											73		75			78											88	89						95					
B7	B*07:12	1							8		10										20			23	24													37		39		41					46																											73		75														89	90					95					
B-	B*07:123	1													14						20			23	24									33				37		39							46						52																					73		75			78											89						95					100
B-	B*07:13	1																			20		22															37		39		41					46																											73				77	78				82							89						95					
B-	B*07:131	1			4				8		10										20			23	24													37		39		41				45																														75			78		80									89						95					
B-, B"Blank"	B*07:132/181N/243/290/351N/365	1																			20			23	24													37		39		41					46																											73		75			78											89						95					
B-	B*07:134	1							8		10										20																	37		39		41					46																											73		75			78											89					94	95					
B-	B*07:137	1							8		10										20			23	24													37		39							46						52																					73		75														89						95					
B7	B*07:14:01~14:02	1							8		10										20			23	24													37		39							46																											73		75														89		91				95					
B-	B*07:140	1							8		10				14						20			23	24													37		39							46						52			55										65								73		75			78											89						95					
B-	B*07:146	1							8		10										20			23														37		39		41										51																						73					78											89						95					
B-	B*07:149	1							8		10													23	24													37		39		41	42				46																											73		75			78											89						95					
B-	B*07:151:01~151:02	1							8		10										20			23	24													37		39		41					46				50																							73		75			78											89						95					
B-	B*07:153	1							8		10										20			23	24													37		39		41					46									55										65								73		75			78											89						95					
B-	B*07:154	1							8		10										20			23	24													37		39		41					46													59														73		75			78											89						95					
B7	B*07:16	1	2						8		10										20				24													37		39		41					46																											73					78								85				89						95					
B-	B*07:162	1							8		10										20			23	24													37		39							46																											73		75													87		89	90					95					
B-	B*07:163/248	1							8		10										20			23	24						30							37		39		41					46																											73		75														89						95					
B-	B*07:164/226	1							8		10										20			23	24													37		39		41																																73		75			78		80															95					
B-	B*07:174	1							8		10							17			20			23	24													37		39		41					46																											73		75			78											89						95					
B-	B*07:18:02	1							8		10										20			23	24													37		39		41					46																											73		75														89		91				95					
B-	B*07:180	1							8	9	10								18						24													37		39		41					46																							69			72	73					78	79										89						95					
B-	B*07:183	1							8		10										20			23	24		26											37		39		41					46																											73		75			78											89						95					
B-	B*07:187/266	1							8		10										20			23														37		39		41					46																											73					78											89						95					
B-	B*07:19	1							8		10										20			23	24													37		39		41										51					56																			75			78											89			93							
B-	B*07:193	1							8		10										20			23	24						30							37		39		41					46																											73		75											86			89	90					95					
B-	B*07:197	1							8		10										20			23	24													37		39							46							53																				73		75														89						95					
B-	B*07:20	1			4				8		10										20			23	24													37		39		41				45	46									55										65										75			78											89						95					
B-	B*07:202	1							8		10										20			23	24													37	38	39		41		43			46				50																							73		75			78																	95					
B-	B*07:204								8		10										20			23	24													37		39		41					46	47																	64									73		75			78											89						95					
B-	B*07:206	1							8		10				14						20			23	24															39							46						52																					73		75			78											89						95					
B-	B*07:207	1							8		10				14					19	20				24													37		39							46						52																					73					78								85				89						95					
B-	B*07:209/407	1							8		10				14						20			23	24													37	38	39													52																					73		75			78		80															95					
B-	B*07:210								8		10				14						20			23	24													37		39							46	47					52												64									73		75			78											89						95					
B-	B*07:214	1							8		10										20			23	24													37		39							46															61												73		75											86		88	89		91				95					
B-	B*07:218	1							8		10										20			23	24													37				41					46																											73		75			78			81								89						95		97			
B-	B*07:219	1				5													18						24													37		39		41					46																										72	73					78											89						95					
B-	B*07:220	1			4				8		10										20			23	24													37				41				45	46																													75			78			81														95					
B-	B*07:222	1							8		10				14			17			20			23	24													37		39							46						52																					73		75			78											89						95					
B-	B*07:223	1			4				8		10										20			23	24													37	38	39		41				45																						67								75			78		80															95					
B-	B*07:225	1							8		10										20			23	24													37		39							46													59														73		75														89						95					
B-	B*07:227	1							8		10										20			23	24													37		39		41					46																											73		75	76													89						95					
B-	B*07:228:01	1									10									19	20				24													37		39		41					46																											73					78								85				89						95					
B-	B*07:228:02	1							8		10									19	20				24													37		39		41					46																											73					78								85				89						95					
B-	B*07:229:01	1							8		10										20			23	24													37		39		41					46																											73		75			78											89	90					95					
B-	B*07:235	1							8		10										20			23	24													37	38	39						45																						67				71				75					80							87			90										
B-	B*07:236/273	1		3					8		10													23	24													37		39		41					46																											73		75			78											89						95					
B-	B*07:239	1							8		10										20			23	24													37		39		41					46																											73		75									83						89						95					
B7	B*07:24	1			4				8		10										20			23	24													37		39		41				45	46																													75			78											89						95					
B-	B*07:247	1							8		10										20		22															37		39		41					46																											73		75			78											89						95					
B-	B*07:25	1							8		10										20			23	24													37	38	39		41										51																						73		75			78																	95					
B-	B*07:255	1							8		10										20			23	24													37		39							46																											73		75											86	87		89		91				95					
B-, B7	B*07:26/147	1							8		10										20			23	24													37		39		41																																73		75			78		80									89						95					
B-	B*07:261	1							8		10										20			23	24													37	38	39		41					46																											73		75			78																	95					
B-	B*07:269/378	1							8		10				14						20			23	24													37		39							46						52																							75			78											89						95					
B-	B*07:27	1		3					8		10														24		26											37		39		41					46																											73					78											89						95				99	
B-	B*07:270	1							8		10				14						20		22															37		39							46						52																					73		75			78											89						95					
B-	B*07:278	1							8		10				14						20			23	24													37		39							46						52																					73		75			78											89	90					95					
B-	B*07:279	1							8		10										20			23	24													37		39		41		43			46				50																							73		75			78											89						95					
B-	B*07:28	1							8		10		12								20			23	24													37		39							46																											73		75			78											89						95					
B-	B*07:29								8		10										20	21		23	24													37		39		41					46	47																										73		75			78											89						95					
B-	B*07:300	1							8		10										20			23														37		39		41					46			49																								73		75			78											89						95					
B-	B*07:306	1							8	9	10										20				24													37		39		41					46																											73					78								85				89						95					
B-	B*07:31	1							8		10										20			23	24													37		39		41					46										56																			75			78											89						95					
B-	B*07:32	1							8		10				14					19	20				24													37		39							46						52																					73					78											89						95					
B-	B*07:327	1							8		10										20			23	24													37		39							46															61												73		75			78										88	89						95					
B-	B*07:33:01~33:03	1							8		10										20			23	24													37		39		41					46																									71		73		75			78											89											
B-	B*07:332	1							8		10				14						20			23	24													37		39							46						52																					73		75			78																	95					
B-	B*07:34	1							8		10				14						20			23	24													37		39													52				56																			75			78		80										89						95					
B-	B*07:349	1							8		10				14						20			23	24													37		39												51	52																					73		75			78											89						95					

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Name

Sample ID

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		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																				
B-	B*07:352								8		10				14						20			23	24													37		39							46	47					52																					73		75			78											89						95					
B-	B*07:358	1			4				8		10				14						20			23	24													37		39						45	46						52																							75			78											89						95					
B-	B*07:359	1							8		10		12								20			23	24													37	38	39						45										55												67				71				75					80											91									
B-	B*07:36	1							8		10								18					23	24													37		39		41					46																							69				73		75			78											89						95					
B-	B*07:37:01~37:02	1							8		10										20				24													37		39		41					46																											73					78							85				89						95					
B-	B*07:38	1							8		10								18	19					24													37		39		41					46																							69			72	73					78											89						95					
B-	B*07:388	1							8		10										20			23	24												36	37		39		41					46																											73		75			78											89											
B7	B*07:40	1							8		10				14						20			23	24													37		39							46						52																					73		75			78											89											
B-	B*07:400	1																			20								28									37		39		41					46																				66							73					78											89					94	95					100
B-	B*07:43	1							8		10										20			23	24													37		39		41															56																			75			78		80									89						95					
B-, B"Blank"	B*07:47/116/125/232/259/325N	1							8		10										20				24													37		39		41					46																											73					78											89						95					
B-	B*07:48	1							8		10										20			23	24													37	38	39		41																																73		75			78		80															95					
B-	B*07:50	1							8		10										20				24		26		28									37		39		41					46																											73					78							85				89						95					
B-	B*07:51/155/301/346/363	1							8		10										20			23	24													37		39		41					46																											73		75			78																	95					
B-	B*07:53	1							8		10				14						20			23	24													37		39							46						52																			71		73		75			78											89											
B-	B*07:54	1																			20			23	24									33				37		39		41					46																											73		75			78											89						95					100
B-	B*07:55	1							8		10										20			23	24			27										37		39		41																			60			63										73		75			78											89						95					
B-	B*07:56:01	1							8		10										20			23	24															39	40	41			44		46																											73		75			78											89						95					
B-	B*07:56:02	1							8		10										20			23	24															39	40	41					46																											73		75			78											89						95					
B-	B*07:60	1							8		10										20			23	24													37		39		41				45	46																									71				75			78											89											
B-	B*07:64	1							8		10										20			23	24							31						37		39		41					46																											73		75			78											89						95					
B-	B*07:65								8		10										20																			39		41					46	47																										73		75			78											89					94	95					
B-	B*07:69	1							8	9	10				14						20				24													37		39							46						52																					73					78											89						95					
B-	B*07:72								8		10										20			23	24															39	40	41					46	47																										73		75			78											89						95					
B-	B*07:77	1							8		10										20			23	24						30							37		39		41					46																											73		75											86			89						95					
B-	B*07:78	1							8		10										20			23	24										34			37		39							46																											73	74	75														89						95					
B-	B*07:80	1							8		10				14						20			23	24													37		39													52																					73		75			78		80									89						95					
B-	B*07:81	1							8		10													23	24													37		39		41					46																							69				73		75			78											89						95					
B-	B*07:84	1							8		10										20			23	24													37		39		41					46																											73	74	75														89						95					
B-	B*07:85:01	1							8	9	10										20				24													37		39		41					46																											73					78											89						95					
B-	B*07:85:02	1								9	10										20				24													37		39		41					46																											73					78											89						95					
B-	B*07:86/383								8		10										20			23	24													37		39		41					46	47																										73		75			78											89						95					
B-	B*07:91	1							8		10										20			23	24													37		39		41					46																											73		75			78							85				89						95					
B-	B*07:94	1							8												20			23	24													37		39		41					46																											73		75			78											89						95					
B8, B"Blank", B-	B*08:01:01:01~01:04/01:07/01:12~01:17/01:19~01:21/01:25/01:28~01:33/01:38~01:41/01:43~01:44/01:46/01:49~01:55/08N/15/18~19N/22/30N/39/44~45/47~48/58~59:02/63~64/71~73/75/77/83/86N/90~93/96:01~96:02/99~100/105/109/112/114/120/127/140/142/145/147/150/152/158~160/163~164/166/168/170/172~173/178/182~183/191/194/196/198~199/202~203/207~211/217~218/221~225/229~231/233~238/240~241/243~248/250~252N/256/258~260								8		10				14					19	20	21			24												36	37	38	39					44			47				51	52				56																						78															93							
B8, B-	B*08:01:05/85/219								8		10				14						20	21			24												36	37	38	39					44			47				51	52				56																						78															93							
B8, B-	B*08:01:06/01:48/149/261								8		10				14					19	20	21			24												36	37	38	39					44							51	52				56																						78															93							
B8	B*08:01:08						6		8		10				14					19	20	21			24												36	37	38	39					44			47				51	52				56																						78															93							
B8, B-, B"Blank"	B*08:01:09/01:22/01:27/82N/115/121/135								8		10				14					19	20	21			24												36	37	38						44			47				51	52				56																						78															93							
B8, B-, B"Blank"	B*08:01:10/51/67:01N~67:02N/97/161/249								8		10				14					19	20	21															36	37	38	39					44			47				51	52				56																						78															93							
B8, B-	B*08:01:11/01:37/41/88/138/162/176/197/257								8		10				14					19	20	21			24												36	37	38	39								47				51	52				56																						78															93							
B8, B-	B*08:01:18/192								8		10				14					19	20	21			24												36	37	38	39					44			47				51	52																										78															93							
B8, B-	B*08:01:23/28/35/74/111/195/227								8		10									19	20	21			24												36	37	38	39					44			47				51					56																						78															93							
B8, B-	B*08:01:24/24/46/137/193										10				14					19	20	21			24												36	37	38	39					44			47				51	52				56																						78															93							
B8, B-	B*08:01:26/01:35/01:45/56:03/61/80/95/122/179/201								8		10				14					19	20	21			24												36		38	39					44			47				51	52				56																						78															93							
B8, B-	B*08:01:34/68/130/167								8		10				14					19	20	21			24												36	37		39					44			47				51	52				56																						78															93							
B8, B-	B*08:01:36/185								8		10				14					19	20	21															36	37	38	39								47				51	52				56																						78															93							
B8, B-	B*08:01:42/31/42/103/113/116/169								8		10				14					19	20	21			24													37	38	39					44			47				51	52				56																						78															93							
B8, B-	B*08:01:47/57/66/124/128/189~190								8		10				14					19	20				24												36	37	38	39					44							51	52				56																						78															93							
B8, B-	B*08:01:56/11/125/186/253								8		10				14					19	20	21			24												36	37	38	39					44			47				51	52																										78																						
B8	B*08:02								8		10				14					19		21			24												36	37	38	39			42		44			47				51	52				56																						78															93							
B8	B*08:03								8		10				14				18	19		21			24												36	37	38	39					44			47				51	52				56													69			72						78															93							
B-	B*08:04:01								8		10				14						20	21			24		26		28								36	37	38	39					44			47				51	52				56																						78															93							
B-	B*08:04:02								8		10				14						20	21					26		28								36	37	38	39					44			47				51	52				56																						78															93							
B-, B"Blank"	B*08:05/141/148N														14						20	21			24												36	37	38	39					44			47				51	52				56																						78															93							

Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)|																																																																																																									
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent|**Allele Group**|																																																																																																								
B8	B*08:07								8		10									19	20	21			24												36	37	38	39		41			44			47				51					56																							78																93							
B8, B-	B*08:09/84								8		10									19	20	21			24												36	37	38	39					44			47				51	52				56																		74																						93							
B8, B-, B"Blank"	B*08:10/98/144/215N/220N														14					19	20	21			24												36	37	38	39					44			47				51	52				56																							78																93							
B-	B*08:101														14					19	20	21												33			36	37	38	39					44			47				51	52				56																							78				82												93							100
B-	B*08:102								8		10				14					19	20	21			24												36		38	39								47				51	52				56																							78																93							
B-, B"Blank"	B*08:104/214N								8		10									19	20	21			24													37							44			47																																																									
B-	B*08:107								8		10									19	20	21			24												36	37	38	39					44			47				51					56																															86	87			90			93							
B-	B*08:108								8		10				14					19	20	21			24												36	37	38	39					44			47				51	52				56			59																			78																93							
B-	B*08:110								8		10				14						20	21			24		26		28									36	37	38	39					44			47				51	52				56																							78								85								93							
B-	B*08:117								8		10				14					19		21			24												36	37	38	39			42		44			47				51	52				56																							78																93			96				
B-	B*08:118								8		10				14					19	20	21			24												36	37	38						44			47				51	52				56																							78			81														93							
B-, B8	B*08:12:01~12:02/16								8		10									19	20	21			24												36	37	38	39					44			47				51	52				56																															86					91		93							
B-	B*08:12:03								8		10									19	20	21			24												36	37	38	39					44			47				51	52				56																															86							93							
B-	B*08:123/132								8		10				14						20	21		23	24												36	37	38	39					44			47				51	52				56																				75			78																93							
B-	B*08:126			3					8		10				14					19		21			24												36	37	38	39					44			47				51	52				56																							78																93							
B-	B*08:129								8		10									19	20	21			24												36	37	38	39					44			47				51	52				56																																				91		93							
B-	B*08:13								8		10				14					19	20	21			24												36	37	38	39					44			47					52				56																							78		80																				
B-	B*08:133								8		10				14					19	20	21															36	37	38	39								47				51	52				56																							78								85								93	94						
B-	B*08:134								8		10				14					19	20	21			24													37	38	39					44			47				51	52				56																71							78																93							
B-	B*08:139								8		10				14					19		21			24												36	37	38	39					44			47				51	52				56																							78																93						99	
B-	B*08:14								8		10									19	20	21			24												36	37	38	39					44			47				51		53			56																							78																93							
B-	B*08:143								8		10				14					19	20	21			24												36	37		39					44			47					52				56																							78		80																				
B-	B*08:146		2						8		10				14						20	21			24												36	37	38	39					44			47				51	52				56																							78																93							
B-	B*08:155								8		10				14					19	20	21				25											36	37	38	39								47				51	52				56																							78																93							
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B-	B*08:165								8		10				14					19	20	21			24												36	37	38	39					44			47				51	52																						73					78																						
B-	B*08:17														14						20	21			24											33			36	37	38	39					44			47				51	52				56										66												78																93							
B-	B*08:171/205								8		10				14					19	20	21			24												36	37	38	39					44			47					52																						73					78		80																				
B-	B*08:175								8		10				14					19	20	21			24													37	38	39					44	45		47				51	52														67				71							78																						
B-	B*08:180								8		10				14					19	20	21															36		38	39	40							47				51	52				56																							78																93	94						
B-	B*08:181								8		10									19	20	21			24												36	37	38	39					44			47			50	51	52				56																					76																		93							
B-	B*08:187								8		10				14					19	20	21			24													37	38	39					44			47				51	52				56																							78																93		95					
B-	B*08:188								8		10				14					19	20	21	22														36	37	38	39								47				51	52				56																							78																93							
B-	B*08:20:01~20:02								8		10				14					19	20	21			24												36	37		39					44		46	47					52				56																							78											89											
B-	B*08:200								8		10									19	20	21			24												36	37	38	39					44			47				51					56																							78										88						93							
B-	B*08:21								8		10				14					19	20	21			24												36	37	38	39					44	45		47				51	52														67											78																						
B-	B*08:213								8		10				14			17		19	20	21			24												36	37	38	39					44			47				51	52				56																							78																93							
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B-	B*08:228									9					14						20	21			24											33			36	37	38	39					44			47				51	52				56																							78																93							100
B-	B*08:23								8		10				14					19	20	21			24												36	37	38	39					44			47				51	52				56																							78								85								93							
B-	B*08:232								8		10									19	20	21			24												36	37	38	39					44			47				51	52				56																												83										93							
B-	B*08:239								8		10				14					19	20																	36		38	39	40							47				51	52				56																							78																93	94						
B-	B*08:25								8		10				14					19	20	21			24												36	37	38	39					44	45		47					52														67											78		80																				
B-	B*08:255								8		10		12							19		21			24													37	38	39			42		44	45		47				51				55												67				71	72																					91									
B-	B*08:26:01								8		10				14					19	20				24												36		38	39	40				44			47				51	52				56																							78																93							
B-	B*08:26:02								8		10				14					19	20				24												36		38	39	40							47				51	52				56																							78																93							
B-	B*08:26:03								8		10				14					19	20				24												36		38	39					44			47				51	52				56																							78																93							
B-	B*08:27/262								8		10				14					19	20	21			24												36	37	38	39					44			47				51	52				56																																							93							
B-, B8	B*08:29/34/36/131/136/153/157/174/216								8		10				14					19		21			24												36	37	38	39					44			47				51	52				56																							78																93							
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B-	B*08:33/60/76/154/177/184/204/206/254								8		10									19	20	21			24												36	37	38	39					44			47				51	52				56																																							93							
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B8	B*08:38:01						6								14					19	20	21			24											33			36	37	38	39					44			47				51	52				56																							78																93							100
B8	B*08:38:02														14					19	20	21			24											33			36	37	38	39					44			47				51	52				56																							78																93							100
B-	B*08:40								8		10				14					19	20	21			24												36	37	38	39					44		46	47					52																						73					78																						
B-	B*08:43								8		10				14					19	20	21			24												36	37	38	39					44			47					52				56																							78																93							
B-	B*08:49								8		10									19	20	21			24						30						36	37	38	39					44			47				51					56																																	88						93							
B-	B*08:50/151/242								8		10				14					19	20				24												36	37	38	39					44			47				51	52				56																							78																93							
B-	B*08:52								8		10				14					19		21			24												36	37	38	39					44			47				51	52				56														69										78																93							
B-	B*08:53:01~53:02								8		10				14					19	20	21			24												36	37		39					44			47				51	52				56																							78											89				93							
B-	B*08:54:01														14						20	21			24				28					33			36	37	38	39					44			47				51	52				56										66												78								85								93							100
B-	B*08:54:02						6								14						20	21			24				28					33			36	37	38	39					44			47				51	52				56										66												78								85								93							100
B-	B*08:55							7	8		10				14					19	20	21			24												36	37	38	39					44			47					52				56																							78																						
B-	B*08:56:01								8		10				14					19	20	21			24												36		38	39	40							47				51	52				56																							78																93							
B-	B*08:56:02								8		10				14					19	20	21			24												36		38	39	40				44			47				51	52				56																							78																93							
B-	B*08:62								8		10	11			14					19	20				24												36	37	38	39					44			47				51	52				56																							78																93							
B-	B*08:65								8	9	10				14						20	21			24												36	37	38	39					44			47				51	52				56																							78																93							
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B-	B*08:70								8		10				14					19	20	21			24												36	37	38	39					44			47					52				56				60			63															78																						
B-	B*08:78								8		10				14				18	19		21			24												36	37	38	39					44			47				51	52				56													69										78																93							
B-	B*08:79								8		10				14					19	20	21			24													37		39					44		46	47					52																						73					78											89						95					
B-	B*08:81/106/119/212								8						14					19	20	21			24												36	37	38	39					44			47				51	52				56																							78																93							
B-	B*08:87								8		10		12							19	20	21			24												36	37	38	39					44			47				51					56																							78																93							
B-	B*08:89								8		10									19	20	21			24												36	37	38	39					44			47				51					56																															86	87				91		93							

WORKSHEET

LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																				
B-	B*08:94	1							8		10				14					19	20				24													36	37	38	39					44							51	52				56																									78															93							
B13, B-, B"Blank"	B*13:01:01:01~01:01:05/01:01:07~01:02/01:05~01:09/01:11~01:12/01:16~01:17/22:01~22:02/29/43/50/52/57/60~61/64/76N~77/80/87/90/95/109/135/138/141~142																																		34				38	39			42					47		49									58									66		68			71	72	73							80																				
B13	B*13:01:01:06																																		34				38	39																																				71		73							80																				
B13, B-	B*13:01:03/122																																								38	39			42					47		49									58									66		68			71	72	73							80																				
B13, B"Blank"	B*13:01:04/01:13/63N																																		34				38					42					47		49									58									66		68			71	72	73							80																				
B13, B-	B*13:01:10/106																																		34				38	39			42							49									58									66		68			71	72	73							80																				
B13	B*13:01:14																																		34				38	39			42					47		49									58									66		68				72	73							80																				
B13, B"Blank"	B*13:01:15/07N																																		34				38	39			42					47		49									58											68			71	72	73							80																				
B13, B-, B"Blank"	B*13:02:01:01~02:01:14/02:04~02:05/02:07/02:09~02:11/02:14~02:16/02:18~02:22/02:24~02:32/27/30/38/42/45/47/49N/54/56:01N~56:02N/65/68~70/74/81~82/84~85/88/91/96/99~105/111~118/121/123Q/125/130/133/136/139N/143																																		34				38	39			42					47		49									58									66		68			71	72	73	74						80																				
B13	B*13:02:02																																		34				38	39			42					47		49									58									66					71	72	73	74						80																				
B13, B-	B*13:02:03/02:12/66																																		34				38	39			42							49									58									66		68			71	72	73	74						80																				
B13	B*13:02:06																																		34				38	39			42					47		49									58									66		68			71	72	73	74						80										90										
B13, B"Blank", B-	B*13:02:08/94/137N																																		34				38	39			42					47												58									66		68			71	72	73	74						80																				
B13, B-	B*13:02:13/44																																		34				38					42					47		49									58									66		68			71	72	73	74						80																				
B13, B-	B*13:02:17/02:23/34/126																																								38	39			42					47		49									58									66		68			71	72	73	74						80																				
B-	B*13:03/120																																		34				38	39			42			45		47		49									58									66	67	68			71	72		74						80																				
B-	B*13:04																																								38	39			42			45		47		49									58									66	67	68			71	72		74						80							87												
B-	B*13:06																																		34				38	39			42					47		49							56		58									66		68			71	72								80																				
B-	B*13:08																																		34				38	39			42					47		49									58									66		68			71	72	73	74																										
B-	B*13:09																				20								28							34				38	39										47		49									58									66		68			71		73	74						80					85															100
B-	B*13:10																																								38	39			42					47		49									58									66		68			71	72	73							80						86					91									
B-	B*13:107/110																																		34					39			42					47		49									58									66		68			71	72	73							80																				
B-	B*13:11																																		34				38	39			42					47		49									58									66		68			71	72	73							80						86					91									
B-	B*13:119																																		34				38	39			42					47		49									58									66		68			71	72		74						80																				
B-	B*13:12:01																																		34				38	39			42					47		49									58									66		68			71	72								80																				
B-	B*13:12:02																																		34				38	39										47		49									58									66		68			71	72								80																				
B-	B*13:124																																		34				38	39			42					47		49									58					64		66		68			71	72	73	74						80																				
B-	B*13:127																																								38	39			42					47		49									58									66		68			71	72	73	74						80										90										
B-	B*13:128																																		34					39			42				46	47		49									58									66		68			71	72	73	74															89											
B-	B*13:129																																		34				38	39			42					47		49																	66					71	72	73							80																				
B13	B*13:13:01~13:02																																								38	39			42					47		49			52						58									66		68			71	72	73							80																				
B-	B*13:131																											27							34					39			42					47		49							56		58		60							66		68			71	72		74															89											
B-	B*13:132																																		34				38	39			42					47		49									58									66		68			71	72	73	74						80		82																		
B-	B*13:134																																		34				38	39			42					47		49									58									66		68			71		73	74						80																				
B-	B*13:14	1																																	34				38	39			42							49									58									66		68			71	72	73	74						80																				
B-	B*13:140																																								38	39			42					47		49									58			61					66		68			71	72	73	74						80								88													
B-	B*13:15																																		34				38					42					47		49									58									66		68			71	72	73	74						80	81																97			
B-	B*13:16																																		34					39			42					47		49									58									66		68			71	72	73	74						80									89												
B-	B*13:17																																		34				38	39	40		42					47		49									58									66		68			71	72	73							80																				
B-	B*13:18																																		34				38	39			42				46	47		49									58									66		68			71	72	73	74																										
B-	B*13:19/75																																		34				38	39			42					47		49									58											68			71	72	73	74						80																				
B-	B*13:20																																		34					39			42					47		49									58									66		68			71	72	73							80									89												
B-	B*13:21																																								38	39			42					47		49			52						58									66		68			71	72	73							80											91									
B-	B*13:23						6					11																							34				38	39			42					47		49									58									66		68			71	72	73							80																				
B-	B*13:25																																		34				38	39			42					47		49									58									66		68			71	72	73							80					85												96				100
B-	B*13:26:01																																								38	39			42					47		49									58									66		68			71	72	73							80							87			90										
B-	B*13:26:02																																								38	39			42					47		49									58									66		68			71	72	73							80							87												
B-	B*13:28																																		34				38	39										47		49									58									66		68			71		73							80																				
B-	B*13:31																											27							34					39			42					47		49									58		60							66		68			71	72	73	74															89											
B-	B*13:32/37/40																																		34					39			42					47		49									58									66		68			71	72	73	74						80																				
B-	B*13:33																																		34				38	39	40		42					47		49									58									66		68			71	72	73	74						80																				
B-	B*13:35																																								38	39		41	42					47		49									58									66		68			71	72	73	74						80																				
B-	B*13:36								8		10																26									34				38	39			42					47		49								57	58											68			71	72	73							80																				
B-	B*13:39																				20														34				38	39										47		49									58									66		68			71		73							80																				
B-	B*13:41																																		34				38	39			42					47		49									58		60							66		68			71	72	73	74																										
B-	B*13:46																																								38	39			42					47		49		51					56		58									66		68			71	72		74													88					93							
B-	B*13:48																																		34					39			42			45		47		49									58									66		68			71	72		74						80									89												
B-	B*13:51																																								38	39			42					47		49									58									66		68			71	72	73							80								88													
B-	B*13:53																																		34				38	39			42					47		49							56		58									66		68			71	72		74						80																				
B-	B*13:55						6					11																							34				38	39			42					47		49									58									66		68			71	72	73	74						80																				
B-	B*13:58																																		34				38	39			42					47																					66					71	72	73	74						80														94							
B-	B*13:59																																								38	39			42					47		49			52						58									66		68			71	72	73	74						80																				
B-	B*13:62																																												42			45		47	48	49			52						58									66		68			71	72		74						80	81								89												
B-	B*13:67																				20														34				38	39										47		49									58									66		68			71		73	74						80																				

WORKSHEET

LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																				
B-	B*13:71/108														14																				38	39			42					47		49			52						58								66		68			71	72	73					78		80																				
B-	B*13:72																																					38	39			42					47		49									58								66		68			71	72	73	74						80							87			90										
B-	B*13:73																																	34				38	39			42				46	47		49									58								66		68			71	72	73																											
B-	B*13:78																																	34				38	39			42					47												58								66		68			71	72	73							80																				
B-	B*13:79																													30										38	39			42					47		49									58								66		68			71	72	73							80								88											
B-	B*13:83	1																																		34				38	39			42							49									58								66		68			71	72	73							80																				
B-	B*13:86																																					38	39			42			45		47		49			52						58	59							66	67	68			71	72								80										90										
B-	B*13:89							7																											34				38	39			42					47		49									58								66		68			71	72	73	74																									
B-	B*13:92																																	34				38	39			42					47		49									58								66					71	72	73							80																				
B-	B*13:93																					21												34				38	39			42					47		49									58								66		68			71	72	73	74						80																				
B-	B*13:97																								24									33	34				38	39			42					47																				66					71	72	73	74						80																				
B-	B*13:98																																	34				38	39			42					47												58								66					71	72	73	74						80																				
B64, B-, B"Blank"	B*14:01:01:01~01:03/01:09~01:10/26/40/65/71/78N/80~81/83/86	1								9	10										20				24															37								44													56																71									80	81		83					88	89										
B64	B*14:01:04	1								9	10										20				24															37																								56																71									80	81		83					88	89										
B64	B*14:01:05	1								9	10														24															37								44													56																71									80	81		83					88	89							96				
B64, B65	B*14:01:06/02:19									9	10										20				24															37								44													56																71									80	81		83					88	89										
B64, B-	B*14:01:07/32	1								9	10										20				24															37								44													56																										80	81		83					88	89										
B64, B-	B*14:01:08/49	1									10										20				24															37								44													56																71									80	81		83					88	89										
B65, B-, B"Blank"	B*14:02:01:01~02:02/02:04/02:07/02:10~02:12/02:16~02:18/02:20/02:22~02:23/02:25~02:26/09/16/20/22/25/29/31/38~39/45/50~51/58/60~61/63~64/66~69N/72N/74~76N/84~85N/88~89									9	10										20				24															37								44			47									56								64								71									80	81		83					88	89										
B65	B*14:02:03/02:06								8	9	10										20				24															37								44			47									56								64								71									80	81		83					88	89										
B65, B-	B*14:02:05/30									9	10														24															37								44			47									56								64								71									80	81		83					88	89										
B65	B*14:02:08									9	10														24															37								44			47									56								64								71									80	81		83					88	89							96				
B65	B*14:02:09									9	10										20				24															37								44			47									56								64								71									80	81							88	89										
B65, B-	B*14:02:13/02:15/15									9	10										20				24															37													47									56								64								71									80	81		83					88	89										
B65, B-	B*14:02:14/44/52/70Q									9	10										20				24															37								44			47																						64								71									80	81		83					88	89										
B65, B-	B*14:02:21/17									9	10										20				24															37								44													56								64								71									80	81		83					88	89										
B65, B-	B*14:02:24/34									9	10										20																									37								44			47									56								64								71									80	81		83					88	89										
B14	B*14:03									9	10										20				24															37								44		46	47									56								64								71											81		83					88	89										
B-	B*14:04																					20				24															37								44			47									56																71									80	81		83					88	89										
B-	B*14:05									9	10										20				24															37								44			47									56								64								71							78		80	81							88	89										
B14	B*14:06:01									9	10										20				24															37								44			47									56								64								71									80	81					86		88	89		91								
B14	B*14:06:02									9	10										20				24															37								44			47									56								64								71									80	81					86		88	89										
B"Blank"	B*14:07N	1								9	10										20				24															37								44																																					71									80	81		83					88	89										
B-	B*14:08:01/55	1								9	10										20				24															37								44													56																71									80	81					86		88	89										
B-	B*14:08:02	1								9	10										20				24															37								44													56																71									80	81					86		88	89		91								
B-	B*14:10	1								9	10										20				24															37								44													56																71									80	81							88	89		91								
B-	B*14:11									9	10										20				24															37								44			47									56																71									80	81		83					88	89										
B-	B*14:12/47	1								9	10										20				24															37								44													56																71											81		83					88	89										
B-	B*14:13									9	10				14						20				24															37								44			47						52				56								64								71							78		80	81								89										
B-	B*14:14	1								9	10										20				24															37								44													56																71									80	81		83		85			88	89										
B-	B*14:18									9	10										20				24															37								44			47									56								64								71									80	81		83		85			88	89										
B-	B*14:19	1								9	10										20				24															37								44	45																																	71									80	81		83					88	89										
B-	B*14:21								8		10										20			23	24															37								44			47									56								64								71				75					80	81		83					88	89										
B-	B*14:23									9	10										20				24															37				41			44			47									56								64								71									80	81		83						89										
B-	B*14:24									9											20				24															37								44			47									56								64								71									80	81		83					88	89										
B-	B*14:27									9	10										20				24															37								44	45		47																						64								71									80	81		83					88	89										
B-	B*14:28									9	10										20	21			24															37								44			47									56																71									80	81		83					88	89										
B-	B*14:33									9	10										20				24															37								44			47									56								64								71									80	81		83						89										
B-	B*14:35									9	10										20																									37													47									56								64								71									80	81		83					88	89										
B-	B*14:36/48									9	10										20				24																												44			47									56								64								71									80	81		83					88	89										
B-	B*14:37									9	10										20				24					29										37								44			47									56								64								71									80	81								89	90		92							
B"Blank", B-	B*14:41N/90									9	10										20				24															37								44			47									56								64								71									80	81		83					88												
B-	B*14:42								8		10									19	20				24															37								44			47									56								64								71									80	81		83					88	89										
B-	B*14:43/59									9	10										20				24															37	38								44			47									56								64								71									80	81		83					88												
B-	B*14:46	1								9	10										20				24															37		39						44																																					71		73							80			83					88	89										
B-	B*14:53	1								9	10				14						20				24															37								44									52				56																71							78		80	81								89										
B-	B*14:54	1								9	10										20				24																			40				44													56																71									80	81		83					88	89										
B-	B*14:56									9	10										20				24															37	38								44			47									56								64								71									80	81					86	87				91								
B-	B*14:57										10					15					20				24															37								44			47									56								64								71									80	81		83					88	89										
B-	B*14:62									9	10										20				24															37		39						44			47									56								64								71									80			83					88	89										
B-	B*14:73										10										20				24		26		28											37								44			47									56								64								71									80	81		83		85			88	89										
B-	B*14:77	1								9	10														24															37								44													56																71									80	81		83					88	89										
B"Blank"	B*14:79N									9	10										20				24															37								44			47																					64																																				
B-	B*14:82	1								9	10										20				24															37								44													56																71											81		83					88												
B-	B*14:87	1								9	10										20				24															37								44													56																71									80	81		83						89										

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Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																							
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																								
B62, B"Blank", B-, B15	B*15:01:01:01~01:01:37/01:03~01:09/01:12/01:17/01:20/01:22~01:25/01:28~01:29/01:31~01:35/01:38/01:41~01:46/01:48/01:51~01:63/34:01/60/78:03/79N/82/92/102/104/122/140/146~147/159~160:01:02/166~167/169/178/181N~182N/187/190N/192/201/203/205/211/227~228/231/247/257/260~261/276/295/316~317/320~321Q/326/333/343/346~347/349:01~349:02/353/355/359/370~373/375N/377Q/385/390~391/400N~401/409/413/419/422/432/440~441/443/456~457/459/464~467/471~474/476~478/482~483N/489/496N/501/512/514~515/520Q/522/528N~529/533/535~536/538/542/547/549N/558/565/568																				20							27	28											39	40					45		47											58		60						66					71														85	86	87		89		91									100
B62, B-	B*15:01:01:38; B*46:77																											27												39						45															60											71															86	87		89		91									
B62, B-	B*15:01:02/278																				20							27	28											39	40					45		47	48										58		60						66					71														85	86	87		89		91									100
B62, B-, B"Blank"	B*15:01:10/96/172/258N/296/365/562N																				20							27	28												40					45		47											58		60						66					71														85	86	87		89		91									100
B62, B-	B*15:01:11/70/97/267																				20							27	28											39	40					45		47											58		60						66					71															86	87		89		91									100
B62, B"Blank"	B*15:01:13/01:37/111N																				20								28											39	40					45		47											58								66					71														85	86	87				91									100
B62, B-, B"Blank"	B*15:01:14/26N/27:02/110/286																				20							27	28											39	40					45		47											58		60						66					71														85	86	87		89											100
B62, B-	B*15:01:15/01:36/01:39/71/125:02/171/175/234/469/493																				20							27	28											39	40					45													58		60						66					71														85	86	87		89		91									100
B62, B-	B*15:01:16/81/113/183/217/244/315/406/561																				20							27	28											39						45		47											58		60						66					71														85	86	87		89		91									100
B62, B-	B*15:01:18/75/105/145																				20								28											39	40					45		47											58		60						66					71														85	86	87				91									100
B62, B-, B"Blank"	B*15:01:19/28/120/246N/392/428/492																				20							27	28											39	40					45		47											58		60											71														85	86	87		89		91									
B62	B*15:01:21																											27												39	40					45		47											58		60						66					71														85	86	87		89		91									
B62, B-, B"Blank"	B*15:01:26/01:47/01:50/163/202/280/340/480/525/540N																				20							27	28											39	40					45		47													60						66					71														85	86	87		89		91									100
B62, B-	B*15:01:27/430/521																											27												39	40					45		47											58		60						66					71														85	86	87		89		91									100
B62, B-, B"Blank"	B*15:01:30/94N/164/318																				20							27	28											39	40					45		47											58		60						66					71															86	87		89		91									
B62, B-, B"Blank"	B*15:01:40/128/232/269/272N/279/309/334/387/416/453																				20							27	28											39	40					45		47											58		60						66					71														85	86			89		91									100
B62	B*15:01:49																											27												39	40					45		47											58		60						66					71														85	86	87		89		91					96				100
B75, B-, B"Blank"	B*15:02:01:01~02:01:04/02:03~02:04/02:06~02:07/02:09/02:12/213~214/302N/325/357~358/425/437~438/454N/491/495/537/557								8		10										20						26		28											39	40					45		47										57	58													71									80					85				89											
B75, B-	B*15:02:02/170/567								8		10										20						26		28											39	40					45		47																								71									80					85				89											
B75	B*15:02:05								8		10										20						26		28											39	40					45		47										57	58													71									80					85				89		91									
B75	B*15:02:08								8		10										20						26		28											39	40					45		47										57	58													71														85				89											
B75, B-	B*15:02:10~02:11/341/374								8		10										20						26		28											39	40							47										57	58													71									80					85				89											
B72, B70, B-	B*15:03:01:01~03:02/03:04/03:06/03:08~03:09/103/132/158/173/220:01:01~220:02/242:01/266/274/281~282/369/444/475/502/560																				20				24				28					33				37		39					44	45		47																			66					71									80					85	86	87		89		91									100
B72	B*15:03:03/03:11																				20				24				28					33				37		39						45		47																			66					71									80					85	86	87		89		91									100
B72	B*15:03:05																				20				24				28									37		39					44	45		47																								71									80					85	86	87		89		91									
B72	B*15:03:07																				20				24				28					33				37		39					44	45		47																			66					71									80					85		87		89											100
B72, B-	B*15:03:10/98																				20								28									37		39						45		47																			66					71									80					85	86	87		89		91									100
B62	B*15:04:01:01~04:04																				20							27	28											39	40					45		47											58		60						66					71			74											85		87		89											100
B62, B-	B*15:05:01~05:02/107/332																				20								28										38	39	40					45		47											58								66	67				71									80					85	86	87				91									100
B62	B*15:05:03																												28										38	39	40					45		47											58								66	67				71									80					85	86	87				91									100
B62	B*15:06																				20								28											39	40					45		47											58								66					71									80				84	85	86			89											100
B62, B-	B*15:07:01:01~07:03/126/207/431/450/524																				20							27	28											39	40					45		47											58		60						66					71							78							85		87		89											100
B75, B-	B*15:08:01~08:02/479								8		10									19	20							27												39	40					45		47										57	58		60											71														85	86	87		89		91									
B70	B*15:09:01~09:02								8	9	10										20				24													37		39					44	45		47	48				52																			71									80					85	86			89		91									
B71, B-	B*15:10:01:01~10:01:06/10:03/10:05/313/427/439/445/455/503/506								8	9	10										20				24													37		39		41			44	45		47																								71									80					85	86			89		91									
B71	B*15:10:02								8	9	10										20				24													37		39		41				45		47																								71									80					85	86			89		91									
B71, B-	B*15:10:04/530/563								8	9	10										20				24													37		39		41			44	45		47																								71									80						86			89		91									
B-	B*15:101																				20							27												39	40					45		47											58		60											71				75											86	87		89		91									100
B-	B*15:106																				20					25			28											39	40					45		47		49																	66					71									80					85				89											100
B71	B*15:108							7	8	9	10										20				24													37		39					44	45		47																								71														85	86	87		89		91									
B-	B*15:109/398																				20							27	28											39	40					45		47													60						66					71													84	85	86	87		89											100

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LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ______________________ Sample ID ______________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																			
B75, B"Blank", B-	B*15:11:01/11:04~11:07/209N/284/305/367		2						8		10										20							27												39	40					45		47										57	58		60											71														85	86	87		89		91									
B75, B-	B*15:11:02/143		2						8		10										20							27												39	40					45		47													60											71														85	86	87		89		91									
B75	B*15:11:03		2						8		10										20							27												39	40					45		47										57	58		60											71														85	86	87		89											
B15	B*15:112								8		10										20						26		28											39	40					45		47										57	58					63								71									80					85				89											
B-	B*15:115								8	9	10														24															37		39			42		44	45		47																									71	72								80					85	86	87		89		91					96				
B-	B*15:116																				20							27	28												39	40				43		45		47											58		60			63			66					71														85	86	87		89		91									100
B-	B*15:117																				20							27	28												39	40							47											58		60						66					71		73														85	86	87		89		91									100
B-	B*15:119/436								8	9	10										20																	37		39						45		47																								71									80					85	86	87		89		91									
B76, B-	B*15:12:01/12:03/19/270																				20							27	28			31								39	40					45		47											58								66					71														85	86	87		89		91									100
B76, B-	B*15:12:02/298																				20							27	28			31									40					45		47											58								66					71														85	86	87		89		91									100
B-	B*15:121								8		10										20						26		28											39	40							47									56	57	58													71									80					85				89											
B-	B*15:123/151/539																				20				24				28					33				37	38	39					44	45		47																			66	67				71									80					85	86	87				91									100
B-	B*15:124								8	9	10										20				24															37	38	39				43	44			47																								71		73							80					85	86	87				91									
B-	B*15:125:01																				20							27	28												39	40					45		47											58		60				64		66					71														85	86	87		89		91									100
B-	B*15:127																				20				24				28					33				37		39						44			47																						66					71									80					85	86	87		89		91									100
B77, B-	B*15:13:01~13:02/418								8		10						16		18											26															39	40					45		47										57	58											69		71	72								80									89											
B-	B*15:131																				20				24				28					33				37		39						44	45		47							55													65	66					71									80					85	86	87		89		91									100
B-	B*15:133								8	9	10										20				24															37		39						44	45		47																								71									80					85	86		88	89		91									
B-	B*15:136							7												20									28											38	39	40					45		47											58								66	67				71														85	86	87				91									100
B-	B*15:137																				20							27	28												39	40					45		47											58		60						66					71			74													85			88	89												100
B-	B*15:138																				20								28												39	40							47											58								66								73							80					85	86	87		89		91				95					100
B-	B*15:139								8		10										20						26													39	40					45		47										57	58															71									80					85				89											
B76, B-	B*15:14/551																	17			20							27	28												39	40					45		47							55			58											65	66					71														85	86	87		89		91									100
B-	B*15:141																				20							27	28												39	40					45		47											58		60			63			66					71														85		87		89											100
B-	B*15:142																				20	21						27	28												39	40					45		47											58		60						66					71														85	86	87		89		91									100
B-	B*15:144								8		10										20						26	27	28												39	40					45		47										57	58		60											71														85				89											
B-	B*15:148		2						8		10										20							27												39	40					45		47										57	58		60											71															86	87		89		91									
B"Blank"	B*15:149N		2																		20							27												39	40					45		47											58		60											71														85	86	87		89		91									
B62	B*15:15:01:01~15:01:02								8		10										20						26	27	28												39	40					45		47										57	58		60											71														85	86	87		89		91									
B-	B*15:150																				20							27	28												39	40					45		47			52						58		60			63			66					71														85	86			89		91									100
B-	B*15:152		2																		20							27												39	40					45		47											58		60											71														85	86	87		89		91									100
B-	B*15:154/165/410/461/554																				20							27	28												39	40					45		47											58		60						66					71														85		87		89		91									100
B-	B*15:155																				20								28												38	39	40					45		47											58								66	67				71			74						80					85		87														100
B-	B*15:156																				20				24				28					33				37		39						44	45		47																						66					71									80					85	86			89		91									100
B63, B-	B*15:16:01:01~16:02:02/16:04/67/95/254/550																16		18													29												39	40					45		47											58															71	72								80							87		89			92						98		
B63	B*15:16:03																16		18													29												39	40					45		47											58															71	72								80							87		89	90		92						98		
B-	B*15:161								8	9	10										20				24															37		39						44	45		47							55													65						71									80					85	86	87		89		91									
B-	B*15:168																16		18																									39	40					45		47					53					58															71	72																86					91							98		
B63, B-	B*15:17:01:01~17:04/17:07/177/196/208/216/423~424/500/523/546Q																16		18																									39	40					45		47					53					58															71	72								80						86			89		91							98		
B-, B63	B*15:17:05/162/411																16		18																									39	40					45		47					53					58															71	72								80						86					91							98		
B63	B*15:17:06																16		18																									39						45		47					53					58															71	72								80						86			89		91							98		
B-	B*15:174/206/363:01~363:02/386																				20							27	28												39	40					45		47											58		60						66																			85	86	87		89		91									100
B-	B*15:176/200								8	9	10										20				24															37		39						44	45		47																								71									80					85	86	87				91									
B-	B*15:179:01~179:02																				20								28												38	39	40					45		47			51							58								66	67				71														85	86	87				91									100
B-, B71, B"Blank"	B*15:18:01:01~18:01:08/18:04/18:06/18:09/72/153/198/226N/263/292/307/314/351/354/380N/382/388/414/433/451/487N/548								8	9	10										20				24															37		39						44	45		47																								71									80					85	86	87		89		91									
B71	B*15:18:02								8	9	10										20				24															37		39						44	45		47																								71									80					85	86	87		89											
B71	B*15:18:03								8	9	10										20				24															37		39						44	45		47																								71									80					85	86			89		91									
B71	B*15:18:05						6		8	9	10										20				24															37		39						44	45		47																								71									80					85	86	87		89		91									
B71	B*15:18:07						6		8	9	10										20				24																	39						44	45		47																								71									80					85	86	87		89		91									
B-, B71	B*15:18:08/134								8	9	10										20				24															37								44	45		47																								71									80					85	86	87		89		91									
B-	B*15:180								8		10									19	20	21			24			27												37		39						44	45		47													60											71															86	87		89		91									
B-	B*15:185																				20								28												38		40					45		47											58								66	67				71									80	81				85	86	87				91									100
B-	B*15:186							7	8	9	10										20				24															37	38	39						44			47									56																	71														85	86	87				91									
B-	B*15:188																				20								28												38	39	40							47						52				56		58								66					71									80					85	86					91									100
B-	B*15:189									9	10										20							27												39	40					45		47										57	58		60											71															86	87		89		91									
B-	B*15:191								8		10									19	20							27												39	40					45														57	58		60											71														85	86	87		89		91									
B-	B*15:193																				20							27	28												39	40							47											58								66					71														85	86	87		89		91									100
B-	B*15:194								8		10										20						26		28											39	40					45		47										57	58															71									80					85		87		89	90										
B-	B*15:195																				20								28												39	40					45		47											58								66					71									80				84	85	86	87		89											100
B-	B*15:197:01/290								8	9	10										20				24															37		39						44	45		47																								71									80					85		87		89											
B-	B*15:197:02								8	9	10										20				24															37		39						44	45		47																								71							78		80					85		87		89											
B-	B*15:199																				20								28												39	40							47				51					56		58								66					71														85	86	87		89		91		93							100
B62, B-	B*15:20/393/407																				20								28												38	39	40					45		47											58								66	67				71									80					85		87			90										100
B-	B*15:204											11									20								28												39	40					45		47											58								66					71									80					85				89												100
B75, B-	B*15:21:01:01~21:01:02/404/420								8	9	10										20																			39	40					45		47										57	58															71									80					85				89											
B-	B*15:210											11									20				24				28					33				37		39						44	45		47																						66					71									80					85	86	87		89		91									100
B-	B*15:212											11									20					25		27	28											39						45		47													60						66					71														85	86	87		89		91									100
B-	B*15:215		2						8		10										20							27												39	40					45		47										57	58		60											71														85		87		89											
B-	B*15:218Q																				20								28												38	39	40							47				51							58								66					71														85	86	87				91									100

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Name ____________________

Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																									
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																								
B-	B*15:219/288																				20								28												39	40					45		47											58								66					71									80					85	86			89		91									100
B-	B*15:221							8	9	10										20				24												37		39					44	45	46	47																											71														85	86	87		89		91									
B-	B*15:222															16		18											29									38	39	40					45		47											58									67				71	72								80							87										98		
B-	B*15:223								8		10										20						26		28											39	40					45		47										57	58														71									80					85		87		89											
B-	B*15:224																				20								28						34				38	39	40							47									56		58								66					71									80					85	86					91									100
B-	B*15:225										11									20							27	28											39	40					45		47											58		60						66					71														85	86	87		89		91									100
B-	B*15:229							8	9	10										20				24												37		39					44	45		47														61										71									80					85	86		88	89		91									
B-	B*15:23							8	9	10								18						24												37		39					44	45		47																							69		71	72							79	80						86	87		89		91									
B-	B*15:230				4												16		18																					39	40					45		47							53					58															72								80						86			89		91				95			98		
B-	B*15:233											12								20							27	28											39	40					45		47											58		60						66					71														85	86			89		91									100
B-	B*15:235						7													20				24				28					33				37	38	39					44	45		47																		66	67				71														85	86	87				91									100
B-	B*15:236																		19	20							27												39	40					45		47											58		60											71															86	87		89		91									100
B-	B*15:237																			20								28										38	39	40					45	46	47											58								66	67				71														85	86	87				91									100
B-	B*15:238							8	9	10										20				24												37		39					44			47																									71		73							80					85	86	87		89		91									
B-	B*15:239																			20							27	28											39	40					45		47													60						66					71														85	86	87		89		91			94						100
B-, B62	B*15:24:01~24:02/157/442															16		18									27												39	40					45		47								54				58		60						66					71	72														86	87		89		91									
B-	B*15:241																			20							27	28											39	40							47											58		60						66							73												85	86	87		89		91				95					100
B-	B*15:242:02																			20				24				28					33				37		39					44	45		47																				66					71									80					85	86	87		89	90										100
B-	B*15:243								9											20				24									33				37		39					44	45		47	48				52																							71									80					85	86			89		91									100
B-	B*15:245:01Q~245:02Q/484																			20							27	28											39	40							47											58		60						66					71														85	86	87		89		91									100
B-	B*15:248/287																			20							27	28											39	40	41				45		47											58		60			63			66					71														85	86			89		91									100
B-	B*15:249																			20								28											39	40					45		47											58		60						66					71														85	86	87		89		91									100
B-, B62, B"Blank"	B*15:25:01:01~25:01:02/25:03~25:04/240/271/366/395/458/463N/468/543~544N/564																			20								28											39	40					45		47											58								66					71									80					85				89											100
B62	B*15:25:02																			20								28											39	40					45		47											58								66					71									80					85				89		91									100
B-	B*15:250																			20								28											39	40					45		47											58								66					71									80					85														100
B-	B*15:251:01~251:03/545																			20							27	28									37		39						45		47											58		60						66					71														85	86	87		89		91									100
B-	B*15:252							8	9	10										20				24												37		39					44			47	48				52				56									63											71									80					85	86			89		91									
B-	B*15:253																			20				24				28					33				37		39					44	45		47																				66					71									80					85	86		88	89		91									100
B-	B*15:255																			20			23	24									33				37		39					44	45		47																									71					75					80						86	87		89		91									100
B-	B*15:256																										27												39	40		42			45		47											58		60						66					71	72														86	87		89		91									
B-	B*15:259																			20				24			27	28					33						39	40					45		47													60						66					71														85	86	87		89		91									100
B-	B*15:265						7	8		10										20						26		28											39	40							47									56	57	58														71														85				89											
B-	B*15:268															16		18																						39	40					45		47											58													71	72								80						86	87		89		91							98		
B62, B-	B*15:27:01/27:03/327																			20							27	28											39	40					45		47											58		60						66					71												84	85	86	87		89											100
B62	B*15:27:04																			20								28											39	40					45		47											58		60						66					71												84	85	86	87		89											100
B-	B*15:273															16		18																						39	40					45		47							53					58													71	72														86			89		91							98		
B-	B*15:275:01~275:02							8	9	10										20				24												37	38	39					44	45		47																					67				71									80					85	86	87				91									
B-	B*15:277																										27												39	40					45		47	48										58		60						66					71														85	86	87		89		91									100
B-	B*15:283								8		10										20						26		28										38	39	40					45		47										57	58									67				71									80					85														
B-	B*15:285/452																			20							27												39	40					45		47											58		60											71														85	86	87		89		91									100
B-	B*15:289																			20								28											39	40					45		47											58								66					71									80									89											
B15	B*15:29:01:01~29:01:02								8		10									19	20				24												37		39					44	45		47																									71									80					85	86	87		89		91									
B-	B*15:291/301								8		10										20						26		28											39	40					45													57	58														71									80					85				89											
B-	B*15:293							8	9	10										20				24					29								37		39					44	45		47																									71									80					85		87		89			92								
B"Blank", B-	B*15:294N/526							8	9	10										20				24												37		39					44	45		47																									71									80						86	87		89		91									
B-	B*15:297				4				8		10										20						26		28											39	40					45		47										57	58																							80					85				89						95					
B62, B-	B*15:30:01:01~30:01:03/541																			20							27	28											39	40					45		47					52						58		60						66					71														85	86			89		91									100
B-	B*15:300/322																			20								28											39	40					45		47											58								66					71														85	86	87		89		91									100
B-	B*15:303		2						8		10										20							27							34					39	40					45		47										57	58		60											71			74											85				89											
B"Blank"	B*15:304N																			20							27	28			31								39						45		47											58								66					71														85	86	87		89		91									100
B-	B*15:306							8	9	10										20				24														39						44	45		47																									71									80					85	86	87		89		91									
B-	B*15:308								8		10										20						26		28											39	40					45		47																									71									80					85				89					94						
B75	B*15:31:01:01~31:01:03								8		10										20						26		28										38	39	40					45		47										57	58									67				71									80					85	86					91									
B-	B*15:310																			20								28											39	40					45		47											58								66					71			74						80					85		87		89											100
B-	B*15:311							8	9	10														24												37		39					44	45		47																									71									80					85	86	87		89		91									
B-	B*15:312							8	9	10										20				24												37		39		41			44	45		47																									71									80					85	86					91									
B-	B*15:319/345								8		10										20						26		28											39						45		47										57	58														71									80					85				89											
B-, B62	B*15:32:01/299																			20							27	28		30									39	40					45		47											58		60						66					71														85	86	87		89											100
B62	B*15:32:02																			20							27	28		30									39						45		47											58		60						66					71														85	86	87		89											100
B-	B*15:323							8	9	10										20				24												37				41			44			47									56																	71									80	81				85	86			89		91									
B-	B*15:324													14						20							27	28											39	40					45		47					52						58		60						66					71							78							85				89											100
B-	B*15:328								8		10										20						26		28												40					45		47										57	58														71									80					85				89											
B-	B*15:329							8	9	10				14						20				24												37		39					44	45		47					52																						71							78		80					85				89											
B15	B*15:33/78:01:01~78:02/78:04																			20							27	28											39	40					45		47											58		60			63			66					71														85	86	87		89		91									100
B-	B*15:330								8		10										20						26		28											39	40					45		47										57	58														71									80									89											
B-	B*15:331																			20							27	28												40					45		47											58		60						66					71							78							85		87		89											100
B-	B*15:335							8	9	10										20				24												37							44	45		47																									71									80	81				85	86	87		89		91									
B-	B*15:336																			20							27	28											39						45		47											58		60						66		68			71														85	86	87		89		91									100
B-	B*15:337							8	9	10										20				24												37		39					44	45		47																																		80					85	86	87		89		91									
B-	B*15:338							8	9	10										20				24												37				41			44	45		47																																		80					85	86			89		91									
B-	B*15:339																																							39	40		42			45		47							53					58								66					71	72								80						86			89		91									
B62	B*15:34:02																			20							27	28											39	40					45		47											58		60						66					71														85	86	87		89	90	91									100
B-	B*15:342																			20							27	28											39	40					45		47							53					58		60						66					71														85				89											100
B-	B*15:344											11									20							27	28											39	40					45		47											58		60						66					71												84	85	86	87		89											100

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LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																				
B-	B*15:348																				20								28										38	39	40							47									56		58								66					71									80					85	86	87				91									100
B-, B"Blank", B62	B*15:35/118/129/184/262N/264/417/470/534																				20							27	28											39	40					45		47											58		60						66					71														85		87		89											100
B-	B*15:350		2						8		10										20							27												39	40					45		47										57	58		60																									85	86	87		89		91									
B-	B*15:352																	17			20							27	28											39	40					45		47											58		60			63			66					71														85	86	87		89		91									100
B-	B*15:356																		18																					39	40					45		47						53																		71	72								80						86			89		91							98		
B-	B*15:36																																							39	40		42			45		47											58								66					71	72								80									89											
B-	B*15:360																				20								28											39	40					45		47											58								66					71							78		80					85				89											100
B-	B*15:361																16		18																					39	40					45		47	48				52						58													71	72								80						86			89		91							98		
B-	B*15:362																16		18											29										39	40					45		47											58													71	72															87		89			92						98		
B-	B*15:364																				20								28												40					45		47											58								66					71									80	81				85	86	87		89		91									100
B-	B*15:368																				20							27	28												40							47									56		58		60						66					71										81				85	86	87		89		91									100
B70	B*15:37								8	9	10										20				24													37				41			44	45		47																								71									80	81				85	86			89		91									
B-	B*15:376									9											20																	37		39						45		47																								71									80					85	86	87		89		91			94						100
B-	B*15:378																				20																			39	40					45		47											58													71									80					85				89											
B-	B*15:379																				20				24				28					33				37		39					44	45	46	47																			66					71														85	86	87		89		91									100
B-	B*15:38:01~38:02																				20							27	28												40					45		47											58		60						66					71										81				85	86	87		89		91									100
B-	B*15:381																				20							27	28											39	40					45													58		60						66					71														85		87		89											100
B-	B*15:383																				20								28										38	39	40					45		47											58								66	67				71							78		80					85		87													100
B-	B*15:384								8		10										20						26		28											39	40					45		47										57	58													71									80					85	86			89		91									
B-	B*15:389																				20				24				28					33				37		39					44			47																			66					71		73							80					85	86	87		89		91									100
B62	B*15:39:01:01~39:02																				20								28											39	40					45		47											58								66					71									80					85	86	87		89		91									100
B-	B*15:394								8	9	10										20																			39	40					45		47										57	58																						80					85				89											
B-	B*15:396																16		18																				38	39	40					45		47						53					58									67				71	72								80						86					91							98		
B-	B*15:397																				20				24				28					33				37		39					44	45		47																			66					71									80						86	87		89		91									
B-	B*15:399								8		10										20						26		28											39	40					45		47		49								57	58										68			71									80					85				89											
B-	B*15:40:01~40:02																				20								28											39	40							47											58								66					71		73							80					85	86	87		89		91									100
B-	B*15:402																				20								28											39	40					45		47											58								66					71									80					85		87		89											100
B-	B*15:403																16		18																					39	40					45		47						53					58													71									80						86			89		91							98		
B-	B*15:405																				20							27	28											39	40					45		47											58		60						66					71							78							85				89											100
B-	B*15:408																16		18											29										39	40					45		47											58														72								80							87		89			92						98		
B-	B*15:412																	17			20							27	28											39	40					45		47											58		60						66					71														85	86	87		89		91									100
B-	B*15:415																				20								28										38	39	40					45		47											58		60						66	67				71														85	86	87				91									100
B-	B*15:42																				20								28						34					39	40							47									56		58								66					71			74						80					85				89											100
B-	B*15:421																				20								28										38	39	40							47											58								66					71		73					78		80					85		87													100
B-	B*15:426								8	9	10	11									20				24													37		39					44	45		47																								71									80					85	86	87		89		91									
B-	B*15:429																				20	21						27	28									37		39						45		47											58		60						66					71														85	86	87		89		91									100
B-	B*15:43			3																								27												39	40					45		47											58		60						66					71															86	87		89		91								99	
B-	B*15:434								8	9	10										20		22															37		39						45		47																								71									80		82			85	86	87		89		91									
B-	B*15:435								8	9	10										20				24													37							44	45		47	48				52																			71									80	81				85	86			89		91									
B-	B*15:44								8	9	10										20																			39	40							47									56	57	58													71									80					85				89											
B-	B*15:446																16		18																					39	40					45								53					58													71	72								80						86			89		91							98		
B-	B*15:447								8	9	10										20				24													37		39					44	45																										71									80					85	86	87		89		91									
B-	B*15:448/527																				20				24				28					33				37							44	45		47																			66					71									80					85	86	87		89		91									100
B-	B*15:449							7													20								28										38	39	40							47									56		58								66					71														85	86	87				91									100
B62	B*15:45																				20							27	28											39	40	41				45		47											58		60						66					71							78							85				89											100
B72	B*15:46																				20					25		27	28											39	40					45		47		49											60						66					71														85	86	87		89		91									100
B-	B*15:460								8		10										20						26		28											39	40					45		47										57	58			61										71									80					85			88	89		91									
B-	B*15:462					5											16		18																					39	40					45		47						53					58													71	72								80						86			89		91							98		
B-	B*15:47:01~47:02/49																				20				24				28					33				37		39					44		46	47																			66					71		73												85	86	87		89		91									100
B62	B*15:48							7													20								28										38	39	40					45		47					52						58								66	67				71														85	86					91									100
B-	B*15:481																											27	28											39	40					45		47											58		60						66					71														85	86	87		89		91									100
B-	B*15:485																				20								28						34				38	39	40							47									56		58								66					71			74						80					85															100
B-	B*15:486		2						8		10										20							27							34					39	40					45		47										57	58		60											71														85	86			89		91									
B-	B*15:488																				20							27	28											39	40					45		47											58		60						66					71														85	86		88	89		91									100
B-	B*15:490																				20							27	28												40					45		47											58								66					71														85	86	87		89		91									100
B-	B*15:494							7													20								28											39	40							47									56		58								66					71														85	86	87		89		91									100
B-	B*15:497																				20								28											39	40							47									56		58								66					71									80					85	86	87		89		91									100
B-	B*15:498								8	9	10										20				24			27										37		39					44	45		47													60											71														85	86	87		89		91									
B-	B*15:499																				20								28										38	39	40					45		47											58		60						66	67				71			74											85		87													100
B-	B*15:50																				20							27	28											39	40							47									56		58		60						66					71														85	86	87		89		91									100
B-	B*15:504								8	9	10										20				24															39	40				44	45		47																								71									80					85	86	87		89		91									
B-	B*15:507																				20								28										38	39	40			43		45		47											58		60						66	67				71														85	86	87				91									100
B-	B*15:508								8		10									19	20																			39	40					45		47										57	58													71									80					85	86	87		89		91									
B-	B*15:509								8		10										20			23	24													37		39					44	45		47																								71				75					80					85	86	87		89		91									
B70	B*15:51								8	9	10										20				24													37	38	39					44	45		47				51																67				71														85	86	87				91									
B-	B*15:510																				20							27	28											39	40					45		47											58		60						66					71												83		85		87		89											100
B-	B*15:511																				20				24				28					33						39					44	45		47																			66					71									80					85	86	87		89		91									100
B-	B*15:513		2						8		10										20																			39	40					45		47										57	58													71														85	86	87				91									
B-	B*15:516																16		18																		36			39	40					45		47						53					58														72								80						86			89		91							98		
B-	B*15:517																				20				24				28					33				37		39					44	45		47																			66					71									80					85		87		89			92								100
B-	B*15:518																				20								28										38	39	40					45		47				51				55			58								66	67				71														85	86	87				91									100
B-	B*15:519																				20								28											39	40						46	47			50								58								66					71		73												85	86	87		89		91									100
B70, B15	B*15:52/114								8	9	10										20				24													37	38	39					44			47																								71		73							80					85	86	87				91									
B-	B*15:53																				20					25		27	28											39						45		47													60						66					71														85	86	87		89		91									100
B-	B*15:531																				20							27	28											39						45		47											58		60						66					71			74											85		87		89											100

WORKSHEET

LABType™ SSO Class I B Locus Typing Test, Lot #020

Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																			
B-	B*15:532																16		18																					39	40							47						53					58													71	72	73							80						86			89		91							98		
B-	B*15:54																				20				24			27	28					33				37		39					44	45		47													60						66					71														85	86	87		89		91									100
B15	B*15:55								8		10										20						26		28										38	39	40					45		47										57	58									67				71							78		80					85															
B-	B*15:552																				20								28						34				38	39	40					45		47											58								66	67				71			74						80					85															100
B-	B*15:553								8		10									19	20				24															39	40				44	45		47						53																		71									80						86			89		91									
B-	B*15:555																																							39	40					45		47						53					58													71	72								80						86			89		91							98		
B-	B*15:556	1																			20							27	28									37		39						45													58		60						66					71														85	86	87		89		91									100
B-	B*15:559											11									20							27	28											39						45		47											58		60						66					71														85	86	87		89		91									100
B-	B*15:56																			19	20							27												39	40					45		47											58		60											71														85	86	87		89		91									100
B-	B*15:566																				20								28											39	40							47									56		58								66					71									80					85				89											100
B-	B*15:57/135																				20							27												39	40					45		47											58		60						66					71															86	87		89		91									
B62	B*15:58																				20							27	28											39	40					45		47											58		60	61					66					71														85	86		88	89		91									100
B-	B*15:61																				20				24				28					33				37		39					44	45		47																			66					71									80						86	87		89		91									100
B-	B*15:62																				20				24				28					33				37		39					44	45		47																			66					71									80					85		87		89	90										100
B-	B*15:63																				20							27	28											39	40	41				45		47											58		60						66					71														85	86			89		91									100
B-	B*15:64:01								8		10										20				24		26		28									37		39					44	45		47																								71									80					85	86	87		89		91									
B-	B*15:64:02								8		10										20						26		28									37		39					44	45		47																								71									80					85	86	87		89		91									
B-	B*15:65																				20								28											39	40					45	46	47											58								66					71														85	86	87		89		91									100
B-	B*15:66									9											20							27												39	40					45		47											58		60											71														85	86	87		89		91									100
B35	B*15:68	1																			20				24			27	28					33				37		39						45															60						66					71							78							85		87		89											100
B-	B*15:69							7													20				24				28					33				37		39					44			47									56										66					71														85	86	87		89		91									100
B62	B*15:73:01:01~73:01:02																				20							27	28						34					39	40					45		47											58		60						66					71														85	86			89		91									100
B-	B*15:74																				20				24									33				37		39					44	45		47																			66					71									80					85	86	87		89		91									100
B-	B*15:76								8		10										20							27												39	40					45		47										57	58		60											71				75											86	87		89		91									
B-	B*15:77												12								20							27	28											39	40					45		47											58		60						66					71														85				89		91									100
B70	B*15:80								8	9	10										20				24													37		39					44	45		47																								71									80					85		87		89		91									
B-	B*15:83:01:01~83:01:02																				20								28										38	39	40							47				51	52				56		58								66					71			74											85								93							100
B62	B*15:84																				20								28										38	39	40					45	46	47											58								66	67				71													84	85	86	87													100
B-	B*15:85																				20							27	28											39	40					45		47											58		60						66					71														85		87		89	90										100
B-	B*15:86																				20								28						34				38	39	40							47									56		58								66					71									80					85	86														100
B-	B*15:87																16											27												39	40					45		47							54				58		60						66					71	72													85	86	87		89		91									100
B-	B*15:88								8		10										20						26		28											39	40					45		47										57	58													71									80					85															
B-	B*15:89:01~89:02/505								8		10																26													39	40		42			45		47										57	58													71	72								80									89											
B-	B*15:90								8	9	10										20				24													37		39		41			44	45		47																								71														85	86			89		91									
B-	B*15:91																				20				24				28					33				37	38	39					44	45		47								55											66	67				71									80					85	86	87				91									100
B71	B*15:93								8	9	10										20				24													37		39					44			47									56															71									80					85	86	87		89		91									
B-	B*15:99								8	9	10										20				24													37		39		41			44	45	46	47																								71														85	86			89		91									
B18, B-, B"Blank"	B*18:01:01:01~01:01:51/01:03~01:05/01:08~01:10/01:12~01:14/01:17/01:19~01:20/01:22/01:24~01:36/01:38~01:40/05:01:01~05:01:02/17N/24/32/34/38/40/42/47/51/53/55/59/62~65/70/72:01~73/75~76/78/81~82/84~85/88~89/92~93/95~96/99~100/103/109/114~117/119~120/123~124/127~129/131:01:01~131:01:02/134~135:01:02/138N~140/144~146/151/154N~163/167/173/175~177/180~184/186~188/192~193								8		10										20						26		28									37	38																		56															71									80	81				85	86	87				91			94						
B18, B-, B"Blank"	B*18:01:02/01:23/03:01:01~03:01:02/06/94N/130/172/174								8		10										20						26		28									37	38																		56															71									80	81					86	87				91			94						
B18, B-	B*18:01:06/08/87								8		10										20						26		28									37	38																		56															71									80	81				85	86	87							94						
B18, B-, B"Blank"	B*18:01:07/23N/83/90~91/104								8		10										20						26		28									37	38																		56																								80	81				85	86	87				91			94						
B18, B-	B*18:01:11/80/98:02/102/112/126								8		10										20						26		28										38																		56															71									80	81				85	86	87				91			94						
B18	B*18:01:15								8		10										20						26		28									37	38																		56															71									80					85	86	87				91			94						
B18, B-	B*18:01:16/01:41~02:01/27/44:01/141/170								8		10										20						26		28									37	38																		56															71									80	81				85		87							94						
B18, B-, B"Blank"	B*18:01:18/60/74N/86/106Q/153								8		10										20						26		28									37	38																																	71									80	81				85	86	87				91			94						
B18	B*18:01:21								8		10																26											37	38																		56															71									80	81				85	86	87				91			94						
B18, B-	B*18:01:37/71/185										10										20						26		28									37	38																		56															71									80	81				85	86	87				91			94						
B18	B*18:02:02								8		10										20						26		28									37	38																		56															71									80	81				85									94						
B18	B*18:03:02								8		10										20						26		28									37	38																		56															71									80	81					86	87				91									
B18	B*18:04:01								8		10										20						26		28										38									47									56															71									80	81				85	86	87				91			94						
B18	B*18:04:02								8		10										20						26		28										38		40							47									56															71									80	81				85	86	87				91			94						
B-	B*18:07:01~07:02								8		10									19	20																	37	38																		56															71									80	81				85	86	87				91			94						
B18	B*18:09								8		10																26											37	38				42														56															71	72								80	81					86	87				91			94						
B-	B*18:10								8		10										20						26		28									37	38	39																																71		73							80					85	86	87				91			94						
B-	B*18:101								8		10										20						26		28									37		39						45																										71									80					85	86	87		89		91			94						
B-	B*18:107								8		10										20					25	26		28										38									47									56															71									80	81				85	86	87				91									
B-	B*18:108								8		10										20						26											37	38																		56															71									80	81					86	87				91			94					99	
B-	B*18:11								8		10										20						26		28									37	38	39																	56															71									80					85	86	87				91			94						
B-	B*18:110								8		10										20						26		28									37	38	39																	56																								80					85	86	87				91			94	95					
B-	B*18:111								8		10										20						26		28									37	38																		56			59												71									80	81				85	86	87				91			94						
B-	B*18:113								8		10										20						26		28									37	38													51					56															71										81				85	86	87				91		93	94						

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Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																									
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																							
B-	B*18:12:01~12:02																				20								28									37	38																		56										66					71									80	81				85	86	87				91			94						100
B-	B*18:121								8		10										20						26		28									37	38																		56															71										81				85	86	87				91			94						
B-	B*18:122/148								8		10										20						26		28									37	38																		56															71									80	81				85	86		88			91			94						
B-	B*18:125								8		10										20						26		28										38									47									56															71									80	81				85	86	87				91									
B-	B*18:13								8		10										20						26		28									37	38								46										56															71										81				85	86	87				91			94						
B-	B*18:136								8		10								18	19																		37	38																		56													69		71	72								80	81					86	87				91			94						
B-	B*18:137																				20																	37	38																		56															71									80	81				85	86	87				91			94						
B-	B*18:14								8		10										20						26		28									37	38																		56															71							78		80	81				85		87							94						
B-	B*18:147/190								8		10																26		28									37	38																		56															71									80	81				85	86	87				91			94						
B-	B*18:15								8		10										20						26		28									37																			56															71									80	81				85	86	87		89		91			94						
B-	B*18:150								8		10										20						26		28									37	38																		56															71									80	81			84	85		87							94						
B-	B*18:152								8		10										20						26		28									37																			56															71									80	81					86	87		89		91			94						
B-	B*18:164								8		10										20						26	27	28									37		39						45															60											71														85	86	87		89		91			94						
B-	B*18:165								8		10										20						26		28									37	38	39														53																		71		73							80					85									94						
B-	B*18:166								8		10		12								20						26		28									37	38																		56															71									80	81				85	86					91			94						
B-	B*18:168							7	8		10										20						26		28									37	38	39																	56					61										71														85	86		88			91			94						
B-	B*18:169								8		10										20						26		28									37	38							45										55												67				71									80	81				85	86	87				91			94						
B-	B*18:171								8		10										20						26		28									37	38																		56															71									80	81						87							94						
B-	B*18:178																				20								28									37	38																		56		58									66				71									80	81				85	86	87				91									100
B-	B*18:179								8		10																26											37	38																		56															71									80	81				85		87							94						
B-	B*18:18:01:01~18:01:02								8		10										20						26		28		30							37	38																		56															71									80	81				85	86	87							94						
B-	B*18:189								8		10										20						26		28									37	38	39													52																			71		73							80					85	86					91			94						
B-	B*18:19								8		10										20						26	27	28									37																			56				60											71										81				85	86	87		89		91			94						
B-	B*18:191								8		10										20						26		28						34			37	38																		56															71									80	81				85	86					91			94						
B-	B*18:194								8		10								18								26											37	38																		56													69		71	72								80	81					86	87				91			94						
B-	B*18:195			3																																		37	38																		56										66					71									80	81					86	87				91			94					99	
B-	B*18:20/41/97								8		10										20						26		28									37	38																		56															71									80	81				85	86					91			94						
B-	B*18:21								8		10										20						26		28									37		39							46																									71		73												85	86	87		89		91			94						
B-	B*18:22/105								8		10										20						26		28									37	38																		56															71									80	81				85		87			90				94						
B-	B*18:25								8		10										20						26		28									37	38									47									56															71									80	81				85	86	87				91			94						
B-	B*18:26/61								8		10										20						26		28									37	38														52				56															71									80	81				85	86					91			94						
B-	B*18:28/31/46/118								8		10										20						26		28									37																			56															71									80	81				85	86	87				91			94						
B-	B*18:29								8		10									19	20																		38		40																56															71									80	81				85	86	87				91			94						
B-	B*18:30								8		10										20						26		28									37									46										56															71										81				85	86	87		89		91			94						
B-	B*18:33								8	9	10										20																	37	38																		56															71									80	81				85	86	87				91			94						
B-	B*18:35								8		10										20						26		28									37	38	39																																		73							80					85	86	87				91			94	95					
B-	B*18:36								8		10										20						26		28									37	38							45																						67				71									80	81				85	86	87				91			94						
B-	B*18:37:01								8		10										20				24		26		28									37	38																		56															71									80	81				85	86	87				91									
B-	B*18:37:02/45/66/133/143								8		10										20						26		28									37	38																		56															71									80	81				85	86	87				91									
B-	B*18:39/69/149								8		10										20						26		28									37	38																		56															71									80	81				85		87				91			94						
B-	B*18:43	1							8		10										20						26		28									37	38																		56															71									80	81				85	86	87				91			94						
B-	B*18:44:02								8		10										20						26		28									37	38																		56															71									80	81		83		85		87							94						
B-	B*18:48								8		10										20					25	26		28									37	38																		56															71									80	81				85	86	87				91									
B-	B*18:49/132/142								8		10										20						26											37	38																		56															71									80	81					86	87				91			94						
B-	B*18:50								8		10										20						26		28									37	38																																	71		73							80	81				85	86	87				91			94			97			
B-	B*18:52								8		10										20						26		28									37	38																		56															71									80	81				85	86	87			90				94						
B-	B*18:54			3					8		10																26											37	38																		56															71									80	81					86	87				91			94					99	
B-	B*18:56								8		10										20						26		28									37	38	39						45						51				55												67				71														85	86	87				91			94						
B-	B*18:57:01~57:02								8		10										20						26		28									37								45																										71									80	81				85	86	87		89		91			94						
B-	B*18:58								8		10										20						26		28									37	38	39						45																						67				71									80					85	86	87				91			94						
B-	B*18:67								8		10																26											37	38																		56													69		71	72								80	81				85	86	87				91			94						
B-	B*18:68								8		10	11									20						26		28									37	38									47									56															71									80	81				85	86	87				91			94						
B-	B*18:77																				20								28									37	38																		56															71									80	81				85	86	87				91			94						
B-	B*18:79								8		10									19	20																	37	38																		56															71									80	81					86	87				91			94						
B-	B*18:98:01								8		10										20						26		28										38		40																56															71									80	81				85	86	87				91			94						
B27	B*27:01															15									24									33					38	39			42											53																		71	72	73							80																				
B27, B-	B*27:02:01:01~02:03/57/95/134/163/171~172/181/197/232															15			18						24									33					38	39														53	54																	71		73						79	80																				
B27	B*27:02:04															15			18						24									33					38	39														53	54																	71								79	80																				
B27	B*27:02:05															15			18						24														38	39														53																		71		73						79	80																				
B27, B-, B"Blank"	B*27:03/05:02:01~05:06/05:10/05:12~05:18:02/05:22~05:24/05:27~05:31/05:34~05:35/05:38~05:46/05:48/13:01~13:02/17/55~56/58/60/64N/72/74/80/82/84/87~88/90:01~90:04/93~94N/96:01~99/104/110~111/117/123~124/135/140~141/143~146/150/155/159/162/166~167/174/178/182/184/190~191/193~196/199/201/205~207/212N/215N~217/220/228/230~231			3												15									24									33					38	39														53																		71		73							80																				
B27, B-	B*27:04:01~04:02/04:04~04:06/68~69/79/100/103/112~114/149/183/210~211/226/229			3												15									24									33						39														53																		71		73							80									89											100
B27	B*27:04:03			3												15									24									33						39								48						53																		71		73							80									89											100

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Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																				
B27, B-	B*27:05:07/05:20/185Q/209			3												15										24									33					38	39														53																			71									80																				
B27, B-, B"Blank"	B*27:05:08/05:25/48/170/221/225N			3												15																				33					38	39														53																			71		73							80																				
B27, B-, B"Blank"	B*27:05:09/39/59N/129/137			3																						24									33					38	39														53																			71		73							80																				
B27, B-	B*27:05:11/05:37/49/116/122/156/158/169/175/202															15										24									33					38	39														53																			71		73							80																				
B27	B*27:05:19			3												15										24									33					38	39														53																			71		73																											
B27	B*27:05:21			3												15																												38	39														53																			71		73							80																				
B27, B-	B*27:05:26/121/128/179			3												15										24									33					38	39														53																					73							80																				
B27, B-, B"Blank"	B*27:05:32/05:36/09/46/78/151/186/223N			3												15										24									33					38	39																																71		73							80																				
B27, B-	B*27:05:33/118/152/177			3												15										24									33					38																53																			71		73							80																				
B27, B-	B*27:05:47/51/148			3												15										24																38	39														53																			71		73							80																				
B27, B-	B*27:06:01:01~06:01:02/91/105/192/208/222			3												15										24									33						39																																			71		73							80									89											100
B27, B-	B*27:07:01~07:06/43/180/187/219			3											14	15										24									33					38	39													52																					71		73					78		80																				
B2708	B*27:08															15					20				24									33					38	39														53																			71		73							80																	100
B27, B-	B*27:10/54			3												15										24									33						39														53																			71		73							80									89											
B-	B*27:101			3																						23	24									33					38	39														53																			71		73		75					80																				
B-	B*27:102															15			18						24									33					38	39															54																			71		73						79	80																				
B-	B*27:106			3								11				15										24									33						39									47																												71		73							80									89											100
B-	B*27:107			3												15										24									33						39																																			71		73							80									89	90										100
B-	B*27:108			3												15										24									33						39								46							53																			71		73																	89											100
B-	B*27:109			3												15										24																	39														53																			71		73							80									89											100
B27	B*27:11			3											14	15										24									33					38	39													52																					71		73					78		80																	100
B-	B*27:115			3												15										24			27							33						39														53							60											71		73																	89											100
B-	B*27:119									9										18						24									33					38	39														53	54																	71	72	73						79	80																				
B27	B*27:12:01:01~12:01:03									9													20				24									33					38	39														53																			71		73							80																	100
B-	B*27:120			3												15										24									33																						53																			71		73							80									89											100
B-	B*27:125			3												15										24									33					38	39				43									52																							73							80						86					91				95					100
B-	B*27:126				4												15			18						24									33					38	39														53	54																	71		73						79	80																				
B-	B*27:127			3									12			15										24									33					38	39						45						51				55													67				71																						91									
B-	B*27:130			3												15										24									33					38	39													52																					71		73	74						80																				
B-	B*27:131			3												15										24									33					38	39														53																			71		73							80					85															100
B-	B*27:132~133			3												15										24									33						39														53																			71		73							80																				
B-	B*27:136			3												15										24									33					38	39		41																																	71		73							80																				
B-	B*27:138			3												15										24									33						39																																			71		73					78		80									89											100
B27, B-	B*27:14/81			3												15										24									33					38	39														53																			71		73	74						80																				
B-	B*27:142															15										24									33					38	39			42											53																			71		73							80																				
B-	B*27:147			3												15										24									33						39														53																			71		73							80																	100
B-	B*27:15			3												15										24									33						39														53			56																	71									80									89											100
B-	B*27:153									9													20				24									33												45			48				52																					71			74						80	81								89											100
B-	B*27:154			3												15										24									33					38	39																																	71		73							80																	100
B-	B*27:157								8		10								18						23	24															38	39														53															69		71		73		75					80																				
B-	B*27:16			3						9																		24									33					38	39														53																			71		73							80																				
B-	B*27:160			3				7								15										24									33					38	39														53																			71		73																											
B-	B*27:161			3												15										24									33					38	39														53							60											71		73																											
B-	B*27:164			3											14	15										24									33					38	39													52																							73					78		80															95					
B-	B*27:165															15										24									33						39														53																			71		73							80									89											100
B-	B*27:173			3												15		17						24									33						39														53																			71		73							80									89											100
B"Blank"	B*27:176N															15			18						24									33					38	39														53	54																			73						79	80																				
B-	B*27:18																					20				24				28			33						39														53												66					71		73							80					85				89											100
B-	B*27:188															15			18						24									33																								54																									79																						
B-	B*27:189			3												15										24									33					38	39					44									53																			71		73							80																				
B27	B*27:19:01:01~19:01:02			3												15										24									33					38	39														53																			71		73							80											91									
B-	B*27:198			3												15								22																					38	39														53																			71		73							80																				
B-, B27	B*27:20/168			3												15										24									33						39													52																					71		73							80									89											100
B-	B*27:200			3												15										24									33					38	39														53						59													71		73							80																				
B-	B*27:204																					20				24									33					38	39														53																			71		73							80																	100
B-	B*27:21:01			3												15										24									33						39																																			71		73							80						86			89		91									100
B-	B*27:21:02			3												15										24									33						39																																			71		73							80						86			89											100
B-	B*27:213															15										24									33					38	39						45								53	54													67				71								79	80																				
B-	B*27:214			3												15										24									33						39	40													53																			71		73							80									89											100
B-	B*27:224			3												15										24									33					38	39									47					53																			71		73							80																				
B-	B*27:227			3									12			15										24									33					38	39																																	71		73							80																				
B-	B*27:23			3					8		10									19					24																38	39														53																			71		73							80					85																	
B-	B*27:24			3											14	15		17							24									33						39													52																					71		73					78		80									89											100
B-	B*27:25			3												15										24			27							33						39						45								53							60											71																						89											100
B-	B*27:26																					20			23	24									33					38	39														53																			71		73		75					80																	100
B-	B*27:27/218			3												15										24									33					38	39													52																					71		73							80																				
B-	B*27:28			3												15										24									33					38																53			56																	71									80	81																		
B27	B*27:29			3																						24									33					38	39														53													66					71		73							80																	99	
B27	B*27:30															15			18						24									33					38	39														53	54																	71		73						79	80											91									
B-	B*27:31			3																						23	24									33					38	39														53																			71		73		75					80																	100
B-	B*27:32			3												15										24									33					38	39														53																			71		73					78		80																				

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Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																								
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																								
B-	B*27:33														14	15					20				24									33					38	39													52																					71		73					78		80																				100
B-	B*27:34			3												15									24									33					38	39		41																														71		73					78		80																				
B-	B*27:35			3												15									24									33					38	39																																71		73							80								88												
B-	B*27:36			3												15									24									33					38	39				43										53																						73							80															95					100
B-	B*27:37	1		3												15									24									33					38	39														53																				71		73							80																				
B-, B27	B*27:38/139			3												15									24									33					38	39						45								53														67				71									80																				
B-	B*27:40															15					20				24									33						39														53																				71		73							80									89											100
B-	B*27:41			3												15									24									33					38	39																																		71		73							80							87													
B-	B*27:42/89															15					20				24									33					38	39														53																				71		73							80																				
B-	B*27:44															15					20				24									33					38	39														53																				71		73							80					85															100
B-	B*27:45			3												15									24									33					38	39							46							53																				71		73																											
B-	B*27:47			3												15									24									33					38	39						45						51		53		55														67				71																													
B-	B*27:50:01~50:02			3												15									24									33					38	39														53		55																		71		73							80																				
B-	B*27:52			3												15																							38	39														53																				71		73							80													94						
B-	B*27:53															15									24									33					38	39														53	54																			71		73						79	80																				
B-	B*27:61			3												15									24									33					38	39														53																				71		73							80																				100
B-	B*27:62															15			18						24									33					38															53	54		56																	71								79	80	81																			
B-	B*27:63			3												15									24									33						39						45								53																				71									80									89											100
B-, B"Blank"	B*27:65N/203															15			18															33					38	39														53	54																			71		73						79	80																				
B"Blank"	B*27:66N			3												15									24									33						39														53																				71		73																89											100
B-	B*27:67			3												15																							38	39														53					58															71		73							80																				
B-	B*27:70			3												15									24									33					38	39														53																				71		73							80						86					91									
B-	B*27:71			3												15									24									33					38	39														53			56																	71									80																				
B-	B*27:73			3												15									24									33																																																																			
B-	B*27:75															15			18						24									33				37	38	39														53	54																			71		73						79	80																				
B-	B*27:76			3												15									24									33					38	39						45																								67				71									80																				
B-	B*27:77																		18						24									33					38	39														53	54																			71		73						79	80																				
B-	B*27:83															15			18						24									33			36		38	39														53	54																					73						79	80																				
B-	B*27:85			3																					24									33					38	39														53																				71		73							80															96				
B-	B*27:86			3												15									24									33						39														53																						73							80									89											100
B-	B*27:92			3					8	9	10														24															39														53																				71		73							80									89										99	
B35, B-, B"Blank"	B*35:01:01:01~01:01:09/ 01:01:11~01:01:45/01:01:47~ 01:01:50/01:03/01:06/01:11~ 01:13/01:19~01:21/01:23/01:25~ 01:26/01:28/01:30/01:34/01:36/ 01:38/01:40~01:42/01:44/01:46~ 01:47/01:49~01:51/01:53~01:55/ 01:57~01:59/01:61/01:63/01:65~ 01:66/07/30:01:01~30:01:02/ 40N~42:01/53N/57/64:01~64:02/ 77/91/94/101:01~101:02/108:01~ 108:02/110/116/119~120/122~ 123/130N~132/134N/137~139/143~ 145N/147/161/165N/168/170~171/ 173:01N~173:02N/175/177~178/ 189/194/209/216N/227~228/240~ 241/244~245/250/252/263~264/ 284/286/288~289/295/302/304/ 306/308/315/319/324/327/330/ 332/336/347~348/353/359/363/ 365/370/376/380:01:01~ 380:01:02/383/392~393/400/402/ 404~406/408~409/412/417/421/ 428Q~429/447~449/453N~454/ 456N/458/462/464~465/467/470/ 473/485								8		10									19	20																		38	39	40					45		47																						67				71									80					85		87			90				94						
B35, B58	B*35:01:01:10/01:01:46; B*58:01:01:02																																						38	39						45																						67				71									80							87			90										
B35, B-	B*35:01:02/01:37/141/166								8		10									19	20																		38	39	40					45		47																						67				71														85		87			90				94						
B35	B*35:01:04								8		10									19	20																		38	39	40					45		47																						67				71									80					85		87			90	91			94						
B35, B-	B*35:01:05/01:60/01:64/111/ 401/418										10									19	20																		38	39	40					45		47																						67				71									80					85		87			90				94						
B35, B-	B*35:01:07/01:18/01:31/272/385								8		10									19	20																		38		40					45		47																						67				71									80					85		87			90				94						
B35, B-	B*35:01:08/01:15~01:16/01:24/ 19/103/210/239/268/271/275/ 314/479								8		10									19	20																		38	39	40					45		47																						67				71									80					85		87			90										
B35, B-	B*35:01:09/78/200/255								8		10										20																		38	39	40					45		47																						67				71									80					85		87			90				94						
B35	B*35:01:10								8		10									19	20																		38	39	40					45		47	48		50																			67				71									80					85		87			90				94						
B35, B-	B*35:01:14/01:17/01:35/01:43/ 17:01~17:04/113/126/159/196/ 253/325/382/484								8		10									19	20																		38	39	40					45		47																						67				71									80					85		87							94						
B35, B-	B*35:01:22/140/180/352								8		10									19	20																			39	40					45		47																										71									80					85		87			90				94						
B35, B-	B*35:01:27/01:48/50/269/297								8		10									19	20																		38	39	40					45																								67				71									80					85		87			90				94						
B35, B-	B*35:01:29/01:33/42:02/90/107/ 219								8		10									19	20																		38	39						45		47																						67				71									80					85		87			90				94						

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Name

Sample ID

HLA Locus

Serology Equivalent	Allele Group	001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
B35, B-	B*35:01:32/01:45/247/303								8		10									19	20																		38	39	40					45		47																				67													80					85		87			90				94						
B35, B-	B*35:01:39/01:52/222/248/293								8		10									19																			38	39	40					45		47																				67				71									80					85		87			90				94						
B35, B-	B*35:01:56/112/191																				20																		38	39	40					45		47																				67				71									80					85		87			90				94						
B35, B-	B*35:01:62/03:01:07/127/369								8		10									19	20																				40							47																																								85									94						
B35, B"Blank", B-	B*35:02:01:01~02:02/02:05/ 02:07/02:11~02:13/02:16/129N/ 182~183/211/220/285/335/339/ 372/374/377~379/387/391/419/ 483								8		10									19	20																		38	39	40					45		47					52							59								67				71									80					85					90				94						
B35	B*35:02:03/02:09/02:14								8		10									19																			38	39	40					45		47					52							59								67				71									80					85					90				94						
B35	B*35:02:04								8		10									19	20																		38		40					45		47					52							59								67				71									80					85					90				94						
B35	B*35:02:06																				20																		38	39	40					45		47					52							59								67				71									80					85					90				94						
B35, B-	B*35:02:08/04:03/12:02/83								8		10									19	20																		38	39	40					45		47					52															67				71									80					85									94						
B35, B-	B*35:02:10/403								8		10									19	20																		38	39	40					45		47					52							59								67				71									80										90				94						
B35, B-	B*35:02:15/184								8		10									19	20																		38	39						45		47					52							59								67				71									80					85					90				94						
B35, B-	B*35:03:01:01~03:01:06/ 03:01:08~03:02/03:04~03:05/ 03:08~03:11/03:13~03:15/03:19/ 03:23~03:26/03:28~03:31/36/55/ 70/75/98/106/152/160/181/195/ 205/223/246/278~279/282/290/ 298/312/344/349/358/360/364/ 371/375/399/415/420/422/434/ 436/438/442/451/455/457/460/ 469/478/482								8		10									19	20																		38	39	40					45		47																				67				71									80					85			88		90				94						
B35, B-	B*35:03:03/03:12/03:18/56/74/ 136/153/243								8		10									19	20																		38	39	40					45		47																				67				71									80								88		90				94						
B35, B-	B*35:03:06/65Q								8		10									19	20																		38	39	40							47																				67				71									80					85			88		90				94						
B35, B-	B*35:03:07/179/242/261/397								8		10									19	20																		38	39	40					45		47																				67				71									80					85			88						94						
B35	B*35:03:16								8		10									19	20																		38	39	40					45		47																				67													80					85			88		90				94						
B35	B*35:03:17/03:20										10									19	20																		38	39	40					45		47																				67				71									80					85			88		90				94						
B35, B-	B*35:03:21/155/231/489								8		10									19	20																		38	39	40					45																						67				71									80					85			88		90				94						
B35, B-	B*35:03:22/03:27/150:01~ 150:02/193								8		10									19	20																		38	39						45		47																				67				71									80					85			88		90				94						
B35, B-	B*35:04:01:01~04:01:02/09:01~ 09:03/321								8		10									19	20																		38	39	40					45		47					52															67				71									80					85					90				94						
B35	B*35:04:02								8		10									19	20																		38	39	40					45		47	48		50		52															67				71									80					85					90				94						
B35, B-, B"Blank"	B*35:05:01:01~05:01:04/97/114/ 389/416/427N/459N								8		10									19	20																		38	39	40					45		47																				67				71							78		80					85		87			90				94						
B35, B-	B*35:05:02/89								8		10									19	20																		38		40					45		47																				67				71							78		80					85		87			90				94						
B35	B*35:05:03/51								8		10									19	20																		38	39	40					45		47																				67				71							78		80					85		87							94						
B35	B*35:05:04										10									19	20																		38	39	40					45		47																				67				71							78		80					85		87			90				94						
B35	B*35:06								8		10									19	20																		38	39	40					45		47														61						67				71									80					85			88		90				94						
B35, B-	B*35:08:01:01~08:01:08/08:04/ 08:06/08:08/08:10~08:11/08:13/ 100/174/187/192/342/386/388/ 437/444~445/466								8		10									19	20																		38	39	40					45	46	47																				67				71														85		87			90				94						
B35, B-	B*35:08:02/300								8		10									19	20																		38	39	40					45	46	47																				67				71														85		87			90										
B35	B*35:08:03								8		10									19	20																		38	39	40					45	46	47																				67				71														85		87			90	91			94						
B35	B*35:08:05								8		10									19	20																		38	39						45	46	47																				67				71														85		87			90										
B35, B-	B*35:08:07/08:12/158/328/411								8		10									19	20																		38	39	40					45	46																					67				71														85		87			90				94						
B35	B*35:08:09								8		10									19	20																		38	39	40					45	46	47																				67																		85		87			90				94						
B35, B-	B*35:10/318																			19	20																		38	39	40					45		47																				67				71									80					85		87			90				94						100
B-	B*35:104/283								8		10									19	20																		38	39	40							47																				67				71									80					85		87			90				94						
B-	B*35:105/346/488								8		10									19	20																		38	39	40					45	46	47																				67				71														85		87							94						
B-	B*35:109								8		10									19	20																		38		40					45		47																				67				71									80	81				85			88		90				94						
B35	B*35:11:01~11:02								8		10									19	20																			39	40					45		47																								71									80					85		87		89	90				94						
B35	B*35:11:03								8		10									19	20																			39	40					45		47																								71														85		87		89	90				94						
B-	B*35:115/260								8		10									19	20																		38	39	40					45		47				51																67				71														85		87			90				94						
B-	B*35:117/475								8		10									19	20							27												39	40					45		47													60											71														85		87		89					94						
B-	B*35:118								8		10									19	20							27												39	40					45		47													60			63								71														85	86	87		89		91			94						
B35, B-	B*35:12:01:01~12:01:02/12:03~ 12:04/266/425/474								8		10									19	20																		38	39	40					45		47					52															67				71									80					85						91			94						
B-, B"Blank"	B*35:121/133/214/291/307/322/ 326/334/345/381N/398/426/431/ 446								8		10									19	20																		38	39	40					45		47																				67				71									80					85					90				94						
B-	B*35:124								8		10									19	20																	37	38	39						45		47																				67				71									80					85		87			90				94						
B-	B*35:125								8		10									19	20																	37	38	39						45		47																				67				71									80					85		87							94						
B-	B*35:128/274/281								8		10									19	20																		38	39	40					45		47																				67				71									80					85			88		90										
B35	B*35:13																			19	20																		38	39	40					45		47																				67				71									80					85			88		90				94						100
B-	B*35:135								8	9	10										20							27												39	40					45		47													60											71														85	86	87		89		91			94						
B35, B"Blank"	B*35:14:01~14:03/390N								8		10									19	20							27												39	40					45		47													60											71														85		87		89	90				94						
B-	B*35:142								8		10									19	20																	37	38	39						45	46	47																				67				71														85		87			90				94						
B-	B*35:146								8		10									19	20																		38	39	40					45		47												59										67				71									80					85		87			90				94						
B-	B*35:148						6		8		10									19	20																		38	39						45		47																				67				71									80					85		87			90				94						
B-	B*35:149								8		10									19	20																		38	39	40					45		47					52															67				71									80					85						91									

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Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																						
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																					
B35	B*35:15:01~15:02								8		10									19	20																		38	39	40							47																								71		73							80					85		87			90				94						
B-	B*35:151:01								8		10									19	20																		38	39	40					45		47																				67				71									80					85	86		88		90	91			94						
B-	B*35:151:02								8		10									19	20																		38	39	40					45		47																				67				71									80					85	86		88		90				94						
B-	B*35:154								8		10									19	20					25													38	39	40					45		47		49			52							59								67				71									80					85					90										
B-	B*35:156								8		10									19	20																		38	39	40					45	46	47																				67				71														85			88		90				94						
B-	B*35:157								8		10									19	20																		38		40							47					52				56			59												71									80	81				85					90				94						
B35	B*35:16																			19	20																		38	39	40					45		47																				67				71									80					85		87							94						100
B-	B*35:162								8		10									19	20																	37	38	39						45							52							59								67				71									80					85					90				94						
B-	B*35:163								8		10									19	20																		38	39	40					45		47													60							67				71														85			88		90				94						
B-	B*35:164								8		10									19	20																		38	39	40					45	46	47																				67				71														85									94						
B-	B*35:167								8		10									19	20																			39	40					45		47																								71									80					85			88	89	90				94						
B-	B*35:169								8		10									19	20																		38	39	40					45		47				51				55												67				71														85			88		90				94						
B-	B*35:172								8		10									19	20																		38	39	40					45	46	47					52							59								67				71														85					90				94						
B-	B*35:176								8											19	20																		38	39	40					45	46	47																				67				71														85		87			90				94						
B35	B*35:18								8		10									19	20																		38	39	40					45	46	47					52															67				71														85					90				94						
B-	B*35:185								8		10									19	20							27												39						45		47													60		62									71															86	87		89		91			94						
B-	B*35:186																				20																		38	39	40					45		47																				67				71						77			80							87			90				94						
B-	B*35:188								8		10									19	20																				40							47									56															71									80	81				85		87		89	90				94						
B-	B*35:190								8		10									19	20																		38		40							47									56															71									80	81				85		87			90				94						
B-	B*35:197	1							8		10									19	20																		38	39	40					45																						67				71									80					85		87			90				94						
B-	B*35:198								8		10									19	20				24														38	39	40					45		47																				67				71									80								88		90										
B-	B*35:199								8		10									19	20																		38	39	40	41				45		47																				67				71							78		80					85									94						
B35	B*35:20:01~20:02								8		10										20						26		28										38	39	40					45		47																				67				71									80					85		87			90				94						
B-	B*35:201								8		10									19	20																		38	39						45		47					52															67				71									80					85						91			94						
B-	B*35:202/373																			19	20																		38	39	40					45		47																				67				71									80					85		87			90				94						
B-	B*35:203								8		10									19	20																		38	39	40					45		47																				67				71									80							87			90				94					99	
B-	B*35:204								8		10									19	20																		38		40					45		47																				67				71									80					85			88		90				94						
B-	B*35:206/225/301								8		10									19	20																		38	39						45	46	47																				67				71														85		87			90				94						
B-	B*35:207																			19	20																		38	39	40					45		47		49									58									67	68			71									80					85		87			90										100
B-	B*35:208:01								8		10									19	20																		38	39	40					45		47			50																	67				71					76				80					85		87							94						
B-	B*35:208:02								8		10									19	20																		38	39	40					45		47																				67				71					76				80					85		87							94						
B-	B*35:21								8		10									19	20																				40					45		47																								71									80	81				85		87		89	90				94						
B-	B*35:212										10										20																		38	39	40					45		47																				67				71									80					85		87			90				94		96				
B-	B*35:213								8		10									19	20							27												39	40							47									56				60											71														85			88	89	90				94						
B-	B*35:215/414								8		10									19	20																		38	39	40					45		47																				67				71									80					85									94						
B-	B*35:217								8		10	11								19	20					25													38	39						45		47																				67				71									80					85		87			90										
B-	B*35:218								8		10									19	20	21																	38	39	40					45		47																				67				71									80					85		87			90				94						
B-	B*35:22:01:01~22:01:02								8		10				14					19	20																		38	39	40					45		47					52															67				71							78		80					85									94						
B-	B*35:221																			19	20																		38	39	40					45		47																				67				71									80					85			88		90				94						
B-	B*35:226																				20								28										38	39	40					45		47																				67				71									80					85		87			90				94						
B-	B*35:229								8		10										20																		38	39	40					45	46	47																				67				71																87			90				94						
B35	B*35:23								8		10									19	20																		38	39	40					45		47																				67				71									80				84	85		87			90				94						
B-	B*35:230								8		10									19	20																		38	39	40			43				47					52																			71		73							80					85									94						
B-	B*35:232								8		10									19	20																			39	40					45	46	47																								71							78							85		87		89	90				94						
B-	B*35:233								8		10									19	20																		38		40					45		47					52															67				71									80	81				85						91			94						
B-	B*35:234								8		10									19	20																		38	39	40					45		47						53														67				71									80					85	86					91			94						
B-	B*35:235								8		10									19	20																		38	39	40					45		47																				67				71			74						80					85			88		90				94						
B-	B*35:236							7	8		10									19	20																		38	39	40					45		47																				67				71														85			88		90				94						
B-	B*35:237								8		10									19	20																			39	40					45		47																								71									80					85			88		90				94						
B-	B*35:24:01~24:02/287								8		10									19	20																		38		40					45		47																				67				71									80	81				85		87			90				94						
B35	B*35:25								8		10									19	20				24													37	38	39					44	45		47																				67				71									80					85		87			90										
B-	B*35:251								8		10									19	20																		38	39	40					45		47	48		50		52															67				71									80					85	86					91			94						
B-	B*35:254								8		10									19	20				24														38	39	40				44	45		47																				67				71									80							87			90										
B-	B*35:256								8		10									19	20	21																	38	39	40					45		47																				67				71									80					85			88		90				94						
B-	B*35:257								8		10									19	20																		38	39	40					45		47		49																		67				71									80					85			88		90				94						
B-	B*35:258								8		10									19	20																		38	39	40					45		47					52							59								67				71									80				84	85					90				94						
B-	B*35:259							7	8		10									19	20																		38	39	40					45		47																				67				71														85		87			90				94						
B-	B*35:26						6			9	10										20				24														38	39	40					45		47																				67				71									80					85		87			90										
B-	B*35:262								8		10									19	20																		38	39	40						46	47									56															71														85		87			90				94						
B-	B*35:265								8		10									19	20							27												39	40					45		47													60											71			74											85		87		89					94						
B-	B*35:267	1							8		10									19	20																	37	38	39						45																						67				71									80					85			88		90				94						
B-, B35	B*35:27/29:01/52/92/224/238/ 249/305/310/313/351								8		10									19	20																		38	39	40					45		47																				67				71									80							87			90				94						
B-	B*35:270																			19	20																		38	39	40					45		47					52							59								67				71									80					85					90				94						100
B-	B*35:273								8		10									19	20																		38	39	40					45		47					52							59								67				71			74						80					85					90				94						
B-	B*35:276							7	8		10									19	20																		38	39	40							47									56					61										71			74											85			88						94						
B-	B*35:277								8		10									19	20																			39	40							47									56															71									80					85		87		89	90				94						
B-	B*35:28:01:01~28:01:03																				20								28										38	39	40					45		47																			66	67				71									80					85		87			90				94						100
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B-	B*35:294								8	9	10										20																		38	39	40					45		47																				67				71									80							87			90				94						
B-	B*35:296								8		10										20						26		28										38	39	40					45		47																				67				71									80					85			88		90				94						
B-	B*35:299								8		10									19																			38	39	40					45		47																				67				71									80							87			90				94						
B-	B*35:309								8		10									19	20																		38	39	40					45		47					52			55				59								67				71									80					85					90				94						

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Name ____________________ Sample ID ____________________

HLA Locus

Serology Equivalent	Allele Group	001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
B-	B*35:31								8		10				14					19	20																			38	39	40							47						52																			71		73					78		80					85										94						
B-	B*35:311								8		10									19	20																			38	39	40					45		47						52					57	58	59									67				71									80					85					90										
B-	B*35:316								8		10									19	20																			38	39	40					45		47						52																67				71									80										90				94						
B-	B*35:317											11									20					25			28													38	39						45		47																					66	67				71					76				80					85		87													100
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B-	B*35:320								8		10									19	20																		37	38	39						45		47																						67				71									80					85			88		90				94						
B-	B*35:323								8		10	11								19	20																			38	39	40					45		47						52							59									67				71									80					85					90				94						
B-	B*35:329			3					8		10									19																					38	39	40					45		47																						67				71									80					85			88		90				94						
B-	B*35:33								8		10									19	20																			38	39	40							47																													71		73							80					85			88		90				94						
B-	B*35:331								8		10							17		19	20																			38	39	40					45		47																						67				71									80					85		87			90				94						
B-, B"Blank"	B*35:333Q/461N								8		10									19	20																			38	39	40						46	47																						67				71															85		87			90				94						
B-	B*35:337:01~337:02								8		10									19	20																				39	40					45	46	47																													71															85		87		89	90				94						
B-	B*35:338								8		10									19																					38	39	40					45	46	47																						67				71															85		87			90				94						
B-	B*35:34								8		10									19	20																			38	39	40	41				45		47																						67				71									80					85					90				94						
B-, B"Blank"	B*35:340/430N								8		10									19	20																				39	40					45		47																						67				71									80					85		87			90				94						
B-	B*35:341								8		10									19	20																			38	39	40						46	47																													71		73													85		87			90				94						
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B-	B*35:361																				20				24				28					33					38	39	40					45		47						52							59								66	67				71									80					85					90										100
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B-	B*35:413								8		10									19	20							27													39	40					45		47															60	61										71															85			88	89	90				94						
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B-	B*35:424								8		10									19																					38	39	40					45		47																						67				71									80					85			88		90				94						
B-, B35	B*35:43:01/67/79/102								8		10									19	20							27													39	40					45		47															60														71															85	86	87		89		91			94						
B35	B*35:43:03								8		10									19	20							27													39	40					45		47															60																													85	86	87		89		91			94						
B35	B*35:43:04										10									19	20							27													39	40					45		47															60														71															85	86	87		89		91			94						
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B-	B*35:435								8		10									19	20																				39	40					45		47																						67				71									80					85			88		90				94						
B-	B*35:439:01:01~439:01:02								8		10										20						26		28													39	40					45		47																													71									80					85		87		89	90				94						
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B-	B*35:440								8		10									19	20																			38	39	40					45		47																						67				71							78		80					85			88		90				94						
B-	B*35:441								8		10	11								19	20																			38	39						45		47																						67				71									80					85		87			90				94						
B-	B*35:443										10									19	20																			38	39	40					45		47						52							59									67				71									80					85					90				94						
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B-	B*35:471							7	8		10								18	19																				38	39	40							47										56					61								69		71	72																86		88			91			94						
B-	B*35:472								8		10									19	20																			38	39	40					45		47																						67				71							78		80							87			90				94						
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B-	B*35:59:01								8		10									19	20																			38	39	40					45		47															61						67				71									80					85			88			91			94						
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B35	B*35:61:01~61:02								8		10									19	20																			38	39	40					45	46	47																						67				71															85		87				91			94						
B-	B*35:62								8		10									19	20																			38	39	40					45		47															60								67				71															85		87			90				94						
B-	B*35:63											11									20					25			28													38	39						45		47																					66	67				71									80					85		87			90										100
B-	B*35:66								8		10									19	20																			38	39	40						46	47																																73					78								85		87			90				94	95					

WORKSHEET

LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ______________________ Sample ID ______________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																										
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																										
B-	B*35:68:01								8		10									19	20																		38	39	40					45		47																				67				71									80					85	86	87			90				94						
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B-	B*35:69																			19	20																		38	39	40					45		47																				67				71									80							87			90				94						100
B-	B*35:71								8		10									19	20																		38	39	40					45		47								55														67				71									80					85		87			90				94						
B-	B*35:72								8		10										20						26		28										38	39	40					45		47																				67				71							78		80					85		87			90				94						
B35/22	B*35:76								8		10										20																		38	39	40					45		47																				67				71				75					80							87			90				94						
B35	B*35:80																			19	20																		38	39	40					45	46	47																				67				71														85		87			90				94						100
B-	B*35:81								8		10									19	20																		38		40					45		47					52							59									67				71									80	81				85					90				94						
B-	B*35:82								8	9	10										20																		38	39	40					45		47																				67				71									80					85		87			90				94						
B-	B*35:84								8		10									19	20																		38	39						45																						67				71									80					85			88		90				94						
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B-	B*35:87								8		10				14					19	20																36		38	39	40							47				51	52				56																						78								85								93	94						
B-	B*35:88								8		10									19	20																		38	39	40							47					52																			71		73							80					85									94						
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B-	B*35:96								8		10									19	20																				40							47									56															71									80	81				85			88	89	90				94						
B-	B*35:99								8		10									19	20																			39	40					45	46	47																								71														85	86	87		89		91			94						
B37, B"Blank", B-	B*37:01:01:01~01:01:11/01:04/ 01:07~01:08/01:10/01:13~01:14/ 01:16~01:22/03N/15/18/20/23/ 27/30N~31/33N/38/43/45~47/49~ 50/59/62~65/68~69/71~73/75~81/ 86N~93			3																											30							37	38	39												51					56												66					71																	88						93	94					99	
B37, B-	B*37:01:02/24/58																														30							37	38	39												51					56												66					71																	88						93	94					99	
B37	B*37:01:03			3																											30							37	38	39												51					56												66					71																	88						93	94						
B37, B-	B*37:01:05/16Q			3																											30							37	38	39												51																	66					71																	88							94					99	
B37, B-, B"Blank"	B*37:01:06/01:15/06:01~06:02/ 42N/54/74/82N			3																											30							37	38	39												51					56												66					71																	88						93						99	
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B37, B-	B*37:01:11/32/53/70			3																											30							37	38													51					56												66					71																	88						93	94					99	
B37, B-	B*37:01:12/22:02/36/41			3																											30								38	39												51					56												66					71																	88						93	94					99	
B-	B*37:02			3																																		37	38	39														53															66					71		73							80														94					99	
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B-	B*37:07			3																																		37		39		41					46																				66							73					78											89							94	95				99	
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B-	B*37:19:02			3																																		37	38	39												51					56												66					71																	88						93	94					99	
B-	B*37:21			3																19											30							37	38	39												51					56																	71																	88						93	94					99	
B-	B*37:22:01			3																											30								38	39	40											51					56												66					71																	88						93	94					99	
B-	B*37:25			3																											30							37	38	39												51					56												66					71																							93	94					99	
B-	B*37:26			3																											30							37	38	39												51																						71																	88							94					99	
B-	B*37:28			3																					24						30			33				37	38	39												51					56												66					71																	88						93						99	
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B-	B*37:40			3				7																							30							37	38	39																	56												66					71																	88							94					99	
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B-	B*37:51			3																											30							37	38	39												51					56												66					71															86		88						93	94					99	
B-	B*37:52			3																											30							37	38	39												51					56												66					71											82						88						93	94					99	
B-	B*37:55			3																											30							37	38	39								47				51					56												66					71																	88						93	94					99	
B-	B*37:56			3																																		37	38	39												51					56												66					71																87				91		93	94					99	
B-	B*37:57			3						9																					30							37	38	39												51					56																	71																	88						93	94					99	
B-	B*37:60			3												15															30							37	38	39												51					56																	71																	88						93	94						
B-	B*37:61			3																											30							37	38	39												51					56		58										66					71																	88						93						99	
B-	B*37:66			3																											30							37	38	39																	56				60								66					71																	88							94					99	
B-	B*37:67								8		10									19	20										30							37	38	39												51					56																	71														85			88						93	94						
B-	B*37:83			3																											30							37	38	39																	56												66					71									80								88							94					99	
B-	B*37:84			3																											30							37	38	39												51	52				56												66					71																							93	94					99	
B-	B*37:85			3																											30							37	38	39								47				51					56								64		66					71																	88						93	94					99	
B-	B*37:94			3																																		37	38	39						45																					66	67				71					76				80							87							94					99	

WORKSHEET

LABType™ SSO Class I B Locus Typing Test, Lot #020

Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																				
B38, B16, B-, B"Blank"	B*38:01:01:01~01:01:11/01:03~01:04/01:06/01:10~01:11/01:15~01:16/09/21/24/27/34N/38~39/57~59/66/68L~71/77~78/80N~81/86/161/168	1						7		9	10							18							24																	37	38	39						44															56					61								69		71	72							79									86		88				91									
B38	B*38:01:02	1						7		9	10							18							24																	37	38	39						44															56													69		71	72							79									86		88				91									
B38	B*38:01:05/12	1						7		9	10							18																											37	38	39						44															56					61								69		71	72							79									86		88				91									
B38, B-	B*38:01:07/16	1						7		9	10							18							24																			38	39						44															56					61								69		71	72							79									86		88				91									
B38	B*38:01:08	1						7	8	9	10							18							24																	37	38	39						44															56					61								69		71	72							79									86		88				91									
B38, B-	B*38:01:09/31	1						7		9	10							18							24																	37	38							44															56					61								69		71	72							79									86		88				91									
B38, B-	B*38:01:12/40	1						7		9	10							18							24																	37	38	39																										56					61								69		71	72							79									86		88				91									
B38	B*38:01:13	1						7		9	10																24																	37	38	39						44															56					61								69		71	72							79									86		88				91									
B38, B-	B*38:01:14/37	1								9	10							18							24																	37	38	39						44															56					61								69		71	72							79									86		88				91									
B38, B-	B*38:01:17/42/55Q	1						7		9	10							18							24																	37	38	39						44															56					61								69		71	72							79									86		88																		
B38, B-, B"Blank"	B*38:02:01:01~02:02:01/02:05~02:06/02:08~02:09/15/18/35/43/48/62/64/72/75/79/82/85/160/162~163/165N/167	1						7		9	10																24																	37	38	39			42		44															56					61											71	72																	86		88				91									
B38	B*38:02:02:02							7																																				38	39																											56					61											71																				86		88				91									
B38	B*38:02:03	1						7	8	9	10																24																	37	38	39			42		44															56					61											71	72																	86		88				91									
B38	B*38:02:04	1						7		9	10																24																	37	38	39			42		44															56																	71	72																	86						91									
B38	B*38:02:07	1						7		9	10																24																	37	38	39			42		44															56					61											71																				86		88				91									
B38	B*38:02:10	1						7		9	10																24																	37	38	39			42		44															56					61											71	72																	86						91									
B16	B*38:03	1						7																		24									33				37	38	39			42		44															56					61					66				71																				86		88				91					96				100
B-	B*38:04	1						7		9																24									33				37	38	39			42		44															56					61											71	72																	86		88				91									
B38	B*38:05							7		9	10							18							24																	37	38	39						44			47											56					61			64					69		71	72							79									86		88				91									
B-	B*38:06	1						7	8		10							18	19																									37	38	39																										56					61								69		71	72																	86		88				91			94					
B-	B*38:07	1						7			10							18	19																									37	38	39																										56					61								69		71	72																	86		88				91			94					
B-	B*38:08/164	1						7		9	10																24																	37	38	39			42		44																						61											71	72																	86		88				91									
B-	B*38:10	1								9	10							18							24																	37		39						44															56					61								69		71	72							79	80						86		88	89			91									
B-	B*38:11	1						7		9	10							18																											37	38	39						44															56					61								69		71	72							79			82			86		88				91									
B-	B*38:13~14/60	1						7		9	10							18							24																	37	38	39						44															56					61								69		71								79									86		88				91									
B-	B*38:156	1						7		9	10										20			24						30											37	38	39						44															56																	71																				86		88													
B-, B39, B"Blank"	B*38:157; B*39:05:01:01~05:01:04/05:03/113/149/161N/163/165/167	1						7		9	10										20			24																	37	38	39						44															56					61											71																			85	86		88				91									
B-	B*38:158	1						7		9	10										20			24																	37	38	39						44														55	56					61											71																				86		88				91									
B-	B*38:159	1						7		9	10										20			24																	37	38	39						44																						61											71		73															85	86		88				91									
B-	B*38:166	1						7			10							18	19				24																	37	38	39						44															56					61								69		71	72																	86		88				91									
B-	B*38:17	1		3				7		9	10																24																	37	38	39						44															56					61											71																				86		88				91								99	
B-	B*38:19	1						7		9	10							18							24																	37	38	39						44															56					61								69		71	72						78	79											88												
B-	B*38:20:01	1						7		9	10							18							24																	37	38	39						44															56					61								69		71	72							79											88				91									
B-	B*38:20:02	1						7		9	10							18							24																	37	38	39						44															56					61								69		71	72							79											88												
B-	B*38:22	1						7		9	10							18							24																	37	38	39																																														69		71	72							79											88												
B-	B*38:23	1						7		9	10																24																	37	38	39			42		44															56					61											71	72																			88				91									
B-	B*38:25	1					6	7		9								18							24									33				37	38	39						44													54		56					61											71	72							79									86		88				91									
B-	B*38:26	1						7			10							18						23	24																	37	38	39						44															56					61								69		71				75															86		88				91									
B-	B*38:28	1						7		9	10							18							24																		38	39	40					44															56					61								69		71	72							79									86		88				91									
B-	B*38:29	1						7		9	10																24																	37	38	39			42		44															56																	71	72																	86		88				91									
B-	B*38:30	1								9	10							18							24																	37	38	39						44	45						51											61						67		69		71	72							79									86		88				91									
B-	B*38:32	1						7		9	10							18							24																	37		39						44															56					61								69		71	72							79									86		88	89			91									
B-	B*38:33							7		9	10							18							24																	37	38	39						44			47											56					61								69		71	72							79									86		88				91									
B-	B*38:36	1								9	10							18							24																	37	38	39						44															56					61								69		71	72							79	80						86		88				91									
B-	B*38:41	1						7		9	10																24																	37	38	39						44															56					61								69		71								79									86		88				91									
B-	B*38:44	1						7		9	10																24																	37	38	39			42		44															56					61											71	72																			88												
B-	B*38:45	1								9	10																24																	37	38	39			42		44															56					61											71	72																	86		88				91									
B-	B*38:46	1						7		9	10																24																		38	39			42		44															56					61											71	72																	86		88				91									
B-	B*38:47	1						7		9	10																24																	37	38	39			42		44															56					61											71	72															85	86		88				91					96				
B-	B*38:49	1						7		9	10																24																	37		39			42		44															56					61											71	72																	86		88				91									
B-	B*38:50	1								9	10																24																	37	38	39			42		44															56					61											71	72								80						86		88				91									
B-, B"Blank"	B*38:51/83N	1						7		9								18							24																	37	38	39						44															56					61											71	72							79									86		88				91									
B-	B*38:52	1								9	10							18							24																	37	38	39						44															56													69		71	72							79	80						86	87						91									
B-	B*38:53	1						7		9	10							18							24																	37	38	39						44															56					61								69		71	72							79									86						91									
B-	B*38:54	1						7			10							18							24																	37	38	39						44															56					61								69		71	72							79									86		88				91									
B-	B*38:56	1						7										18							24																	37	38	39						44															56					61											71	72																	86		88				91									
B-	B*38:61	1						7		9	10							18							24																	37	38	39						44															56					61											71																				86		88				91									
B-	B*38:63	1								9	10							18							24																	37	38	39					43	44																						61								69			72	73						79	80						86		88				91				95				
B-	B*38:65	1						7		9	10							18							24																	37	38	39						44	45																				61						67		69		71	72							79									86		88				91									
B-	B*38:67	1						7		9	10																24																	37	38	39						44															56					61								69		71	72							79							85	86		88				91									
B-	B*38:73	1						7		9	10							18							24																	37	38	39						44								52				56													69		71	72							79									86						91									
B-	B*38:74	1						7			10								19						24																	37	38	39			42		44															56					61											71	72																	86		88				91									
B-	B*38:76	1						7		9	10																24																	37	38	39						44															56					61											71																				86		88				91									
B-	B*38:84							7		9	10																24																	37	38	39			42		44															56					61											71	72																	86		88				91									

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Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																							
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	Allele Group																																																																																																							
B3901, B39"Low", B-, B"Blank", B39	B*39:01:01:01~01:05/01:08/01:10/01:12~01:13/01:17/01:19~01:20/01:22~01:29/01:31~01:32/25N/27/44~46/51/59/61/67~68/71/75/77/85~87N/93~95N/98/100/108/119/123~125/130/133N/137/139N/142N/146N/148/150Q~151/153/160/166/168	1						7		9	10										20				24													37	38	39					44												56					61										71															86		88			91									
B3901, B39, B-	B*39:01:06/19:02/69	1						7		9	10										20																	37	38	39																	56					61										71															86		88			91									
B3901, B-	B*39:01:07/42/73/106	1						7		9	10										20				24													37	38	39					44												56					61										71																	88			91									
B3901	B*39:01:09	1						7	8	9	10										20				24													37	38	39					44												56					61										71															86		88			91									
B3901	B*39:01:11	1								9	10										20				24													37	38	39					44												56					61										71															86		88			91									
B3901	B*39:01:14	1						7		9	10										20				24													37	38	39																	56					61										71															86		88			91									
B3901, B-	B*39:01:15/104	1						7		9	10														24													37	38	39					44												56					61										71															86		88			91					96				
B3901, B-	B*39:01:16/111/134	1						7		9	10										20				24													37	38	39					44												56															71															86					91									
B3901, B-, B"Blank"	B*39:01:18/97N/122	1						7		9	10										20				24													37	38	39					44												56					61																									86		88			91									
B3901, B-	B*39:01:21/136	1								9	10										20				24													37							44																																																												
B3901	B*39:01:30	1						7	8	9	10										20				24													37	38	39																	56					61										71															86		88			91									
B3902, B-, B39	B*39:02:01:01~02:03/23/162	1						7													20				24				28					33				37	38	39					44												56					61					66					71															86		88			91									100
B39, B-	B*39:03:01:01~03:01:03/144	1						7		9	10										20				24													37	38	39					44												56					61										71							78										88												
B39	B*39:04/12:01:01~12:01:02							7		9	10										20				24													37	38	39					44			47									56					61										71															86		88			91									
B39	B*39:05:02	1						7		9	10										20				24													37	38						44												56					61										71														85	86		88			91									
B39, B-	B*39:06:01~06:02:07/06:06/62/64/90/109/127/132/140~141	1						7		9	10										20				24													37	38	39					44												56					61										71			74														88												
B39	B*39:06:03	1						7	8	9	10										20				24													37	38	39					44												56					61										71			74														88												
B39	B*39:06:04	1						7		9											20				24													37	38	39					44												56					61										71			74														88												
B39	B*39:06:05	1						7		9	10														24													37	38	39					44												56					61										71			74														88												
B-	B*39:07	1						7		9	10										20				24													37	38	39					44												56															71														85	86	87				91									
B39	B*39:08	1																			20				24				28					33				37	38	39					44		46										56					61					66					71														85	86		88			91									100
B39, B-	B*39:09:01:01~09:01:04/09:03~09:04/155/158	1						7		9	10										20				24						30							37	38	39					44												56					61										71															86		88												
B39, B-	B*39:09:02/84	1						7		9	10										20				24													37	38	39					44												56					61										71															86		88												
B39, B-	B*39:10:01/20/89/96/99/131/143/145	1	2					7	8		10										20				24													37	38	39					44												56					61										71															86		88			91									
B39	B*39:10:02	1						7													20				24													37	38	39					44												56					61										71															86		88			91									
B-	B*39:101							7													20				24				28					33				37	38	39					44												56					61					66					71															86		88			91									100
B-	B*39:105	1						7													20								28					33				37	38	39					44												56					61					66					71															86		88			91									100
B-	B*39:107	1								9	10										20				24													37		39					44												56					61										71									80						86		88	89		91									
B39	B*39:11	1								9	10										20				24													37	38	39					44		46										56					61										71														85	86		88			91									
B-	B*39:110	1						7													20				24				28					33				37	38	39																	56					61					66					71															86		88			91									100
B-	B*39:112	1								9	10										20				24						30							37	38	39					44												56					61										71									80						86		88												
B-	B*39:114~115	1						7		9	10										20																	37	38	39					44												56					61										71															86		88			91									
B-	B*39:118	1						7		9	10										20				24													37	38	39					44												56					61										71														85	86		88												
B-	B*39:121	1						7		9	10										20		22															37	38	39																	56					61										71															86		88			91									
B-	B*39:126	1	2					7	8		10										20				24													37	38	39					44								52				56															71															86					91									
B-	B*39:128									9	10										20				24													37	38	39					44												56					61										71									80						86		88			91									
B-	B*39:129							7		9	10										20				24													37	38	39					44			47									56					61			64							71			74														88												
B39	B*39:13:01	1						7													20				24				28					33				37	38	39					44												56					61					66					71														85	86		88			91									100
B39	B*39:13:02	1						7													20				24				28					33				37	38	39																	56					61					66					71														85	86		88			91									100
B-	B*39:135	1						7		9	10										20				24														38	39	40				44												56					61										71															86		88			91									
B-	B*39:14:01:01~14:01:03	1						7		9	10				14						20				24													37	38	39					44								52				56															71							78																						
B"Blank"	B*39:147N	1						7		9											20				24													37	38	39					44												56					61										71														85	86		88			91									
B39	B*39:15	1						7		9	10										20				24													37	38	39					44												56															71															86		88			91									
B-	B*39:154	1						7			10										20				24													37	38	39					44												56					61										71			74														88												
B-	B*39:156	1								9	10										20				24													37	38	39					44							51					56					61										71															86		88			91		93							
B-	B*39:159	1						7		9	10										20				24													37	38						44												56					61										71															86		88			91									
B-	B*39:16	1	2					7	8		10										20				24													37	38	39					44												56					61										71																	88												
B-	B*39:164	1						7													20				24				28					33				37	38	39					44												56					61					66					71															86		88			91									
B-	B*39:17	1	2					7	8		10										20				24													37	38	39					44												56															71															86					91									
B-	B*39:18	1								9	10										20				24													37		39					44												56				60	61										71															86		88	89		91									
B39	B*39:19:01	1						7	8	9	10										20																	37	38	39																	56					61										71															86		88			91			94						
B-	B*39:22	1						7		9											20				24									33				37	38	39					44												56					61										71															86		88			91									100
B-, B39	B*39:24:01/28/79/120/152	1						7		9	10										20				24													37	38	39					44												56					61										71																	88												
B39	B*39:24:02	1						7		9	10														24													37	38	39					44												56					61										71																	88								96				
B-	B*39:26/60/117	1						7		9	10										20				24													37		39					44												56					61										71															86		88			91									
B-	B*39:29	1						7		9	10										20				24													37	38	39		41			44												56															71							78																						
B-	B*39:30	1								9	10										20				24													37	38	39					44												56					61										71									80						86		88			91									
B-, B"Blank", B39	B*39:31:01:01~31:01:02/41/72/103/157N							7		9	10										20				24													37	38	39					44												56					61										71															86		88			91									
B-	B*39:32	1						7		9	10										20				24													37	38						44	45																61						67				71										81					86		88			91									
B-	B*39:33	1								9	10										20				24													37	38	39					44	45	46															61						67				71			74														88												
B39	B*39:34	1								9	10										20				24													37	38	39					44												56					61										71			74						80								88												
B-	B*39:35	1						7		9	10										20				24													37		39					44												56					61										71															86		88	89		91									
B-	B*39:36	1								9	10										20				24			27										37		39					44												56				60	61										71															86		88	89		91									
B-	B*39:37:01:01~37:01:02	1						7		9	10										20				24													37	38	39					44												56					61										71							78							85			88												
B-, B"Blank"	B*39:38Q/40:01N/53/80	1						7		9	10										20				24													37	38	39					44																	61										71															86		88			91									

Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																				
B-	B*39:39:01	1						7			10										20				24		26		28									37	38	39					44													56					61										71															86		88			91									
B-	B*39:39:02	1						7	8		10										20						26		28									37	38	39					44													56					61										71															86		88			91									
B"Blank"	B*39:40:02N	1						7		9	10										20				24													37		39					44																			61										71															86		88			91									
B-	B*39:43	1								9	10										20				24													37	38						44													56																71									80	81					86	87				91									
B-	B*39:47	1						7		9	10										20				24													37	38	39					44																			61										71		73														86		88			91									
B-	B*39:48	1						7		9	10										20				24													37	38						44													56					61										71										81					86		88			91									
B-	B*39:49	1						7														20				24				28					33				37	38	39					44													56											66					71														85	86		88			91									100
B39	B*39:50	1						7		9	10										20				24													37	38	39					44																			61										71		73	74																88												
B-	B*39:52	1						7			10										20				24													37	38	39					44													56					61										71															86		88			91									
B-	B*39:54/65/138	1						7		9	10										20				24														38	39					44													56					61										71															86		88			91									
B-	B*39:55	1						7		9	10										20				24													37	38	39					44													56																71														85	86		88			91									
B-	B*39:56	1						7		9	10										20				24													37		39					44													56					61										71														85	86		88			91									
B-	B*39:57/102	1						7		9	10										20				24													37	38	39					44																			61										71			74															88												
B-	B*39:58	1						7			10									19	20				24													37	38	39					44													56					61										71															86		88			91									
B-	B*39:63		2					7	8		10										20				24														38	39					44			47									56					61										71															86		88			91									
B-	B*39:66/78/92	1						7		9											20				24													37	38	39					44													56					61										71															86		88			91									
B-	B*39:70	1						7		9	10										20				24													37	38	39					44								52				56																71															86						91									
B-	B*39:74	1						7		9	10										20				24													37	38	39					44	45																	61						67				71															86		88			91									
B-	B*39:76							7		9	10										20				24													37	38	39					44													56					61										71																	88												
B"Blank", B-	B*39:81/116N	1						7		9	10										20				24													37	38	39					44													56					61										71															86						91									
B-	B*39:82	1								9	10										20				24													37		39					44													56					61										71									80						86		88			91									
B-	B*39:83:01/83:03	1						7	8		10									19	20				24													37	38	39					44													56					61										71			74															88												
B-	B*39:83:02	1						7			10									19	20				24													37	38	39					44													56					61										71			74															88												
B-	B*39:88	1						7			10										20				24		26		28		30							37	38	39					44													56					61										71															86		88												
B-	B*39:91	1						7		9	10										20				24													37	38	39					44													56																71															86	87				91									
B60, B-, B"Blank"	B*40:01:01~01:03/01:08~01:09/01:11/01:14/01:16~01:17/01:19/01:21~01:22/01:24~01:28/01:30~01:33/01:35~01:37/01:39/01:42/01:44~01:46/01:48~01:55/01:57~01:58/01:61~01:68/22N/55/62/65/79/81/84/87:01~88/102/108/118N/123/125:02~125:03/138/141/150~152/154~155:02N/168/175/179/186:01~187/193~194/196/207/212~213/215~218/221/223/228/236/238/241/247/250/252/258/260/264/272~273/277~278/286N/288/299~301/310/312/319/321/323:01~323:02/326~327/329/332~333/338N~339/346/353:01~353:02/358/370/372N/379/381~383/385~386/391~392/395~397/401~402/406/416~419/421Q/426N/431/433/436/439/443/446~448/450/456/461											11									20					25			28											38	39			43				47					52													66							73							80					85	86					91				95					100
B60, B-	B*40:01:04/125:01/452											11									20					25			28											38	39			43				47					52													66							73							80					85	86									95					100
B60	B*40:01:05											11									20					25																	38	39			43				47					52													66							73							80						86					91				95					
B60	B*40:01:06											11									20					25			28											38	39			43				47	48		50		52													66							73							80					85	86					91				95					100
B60, B-	B*40:01:07/01:20/14:01~14:03/72:01~72:02/121/192/197/237/261/285/380											11									20					25			28											38	39									47					52													66							73							80					85	86					91				95					100
B60	B*40:01:10											11									20					25			28											38	39			43									52													66							73							80					85	86					91				95					100
B60, B-	B*40:01:12/257											11									20					25			28											38	39			43				47					52													66							73													85	86					91				95					100
B60, B-	B*40:01:13/49/191																				20					25			28											38	39			43				47					52													66							73							80					85	86					91				95					100
B60, B-	B*40:01:15/66/73/147/360											11									20					25			28											38	39			43				47					52													66							73							80						86					91				95					
B60, B-	B*40:01:18/160:02/259/316/403											11									20					25			28											38	39			43				47					52													66							73							80					85											95					100
B60, B-, B"Blank"	B*40:01:23/01:43/54/253/263N/367											11									20					25			28											38				43				47					52													66							73							80					85	86					91				95					100
B60, B-	B*40:01:29/139; B*50:54											11									20					25			28																			47																			66																						85																	100
B60, B-	B*40:01:34/01:40/74/195/234/251/393/407																				20					25			28											38	39			43									52													66							73							80					85	86					91				95					100
B60, B-	B*40:01:38/01:47/38/42/126/172/222/240/422											11									20					25			28											38	39			43				47																						66							73							80					85	86					91				95					100
B60, B-, B"Blank"	B*40:01:41/156/170/182/185/208/265N/308											11									20								28											38	39			43				47					52													66							73							80					85	86					91				95					100
B60, B-	B*40:01:56/01:59/01:69/101/112/171/315											11									20					25			28											38	39			43				47					52													66															80					85	86					91				95					100
B60, B-	B*40:01:60/01:70/140/235/336/398/404											11									20					25			28											38	39			43				47					52													66							73							80					85	86					91									100

WORKSHEET

LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ____________________

Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																				
B61, B-, B"Blank"	B*40:02:01:01~02:02/02:04/02:06~02:15/02:18~02:31/35:01~35:02/56~57/78/82/85/91/94/97/111/122/142N/144N~145/164/169/176/181/189/202/211/214/224/246/254~255/271/283/287/289/291N/293/296~297/302~304/320/331/334/337N/345N/347/356/375/384/390/405/409~410/413/415/432/435/437/440~442/444/455													14						20					25			28										38	39												52														66						71		73					78		80					85															100
B61, B-	B*40:02:03/369													14						20					25														38	39												52																							71		73					78		80					85															100
B61, B-	B*40:02:05/205/276/378													14						20										28										38	39												52														66						71		73					78		80					85															100
B61, B-	B*40:02:16/09/27:01~27:02/89/105																						20					25			28										38	39																										66						71		73					78		80					85															100
B61, B-	B*40:02:17/104/107/412													14						20					25			28										38														52														66						71		73					78		80					85															100
B61, B-	B*40:03:01:01~03:02/267																						20					25			28										38	39																										66						71		73					78		80					85		87													100
B61, B-, B40	B*40:04:01/64:01:01~64:01:02/173/203/225:01~225:02/243/354																						20					25			28										38	39												52														66						71		73							80					85															100
B61	B*40:04:02																						20					25			28										38	39												52														66						71		73							80					85					90										100
B4005	B*40:05:01:01~05:01:03													14						20					25			28											39							45							52														66						71							78		80					85				89											100
B61, B-, B"Blank"	B*40:06:01:01~06:05/06:07~06:08/06:11/06:14~06:17/06:20~06:21/06:23~06:24/70:01~70:02/103/127/131/167/190/268~269/295/311/317~318/349/361N/363/387/389/408/411/425/427/445/453~454																						20					25			28										38	39												52														66						71		73	74						80					85															100
B61, B-	B*40:06:06/83/177/275/294/350/373/460																						20										28										38	39												52														66						71		73	74						80					85															100
B61, B-	B*40:06:09~06:10/06:18/06:25/307/341																						20					25			28										38	39																										66						71		73	74						80					85															100
B61, B-	B*40:06:12/451																						20					25			28										38	39												52																							71		73	74						80					85															
B61, B-	B*40:06:13/165/270/348/459																						20					25			28										38														52														66						71		73	74						80					85															100
B61, B-	B*40:06:19/374																						20					25			28										38	39												52														66						71		73	74											85															100
B61, B-	B*40:06:22/244																						20					25			28										38	39												52														66						71		73	74						80					85															
B60	B*40:07												11								19	20					25														38	39				43				47					52																										73							80					85	86						91				95					100
B-	B*40:08										8		10				14					19	20					25														38	39												52																							71		73					78		80					85															
B60, B-	B*40:10:01:01~10:01:02/325																						20					25			28										38	39	40			43				47					52														66								73							80					85	86						91				95					100
B60	B*40:10:02																						20					25			28										38	39	40			43				47		49			52														66								73							80					85	86						91				95					100
B-	B*40:100												11									20					25			28										38	39				43				47					52														66								73							80				84	85	86										95					100
B-	B*40:106										8		10	11								19	20					25														38	39				43				47					52																										73							80					85	86						91				95					
B-	B*40:109																													25														38	39												52		54													66				70	71	72	73	74						80					85															100
B61	B*40:11:01:01~11:01:03																						20					25			28										38	39												52														66						71		73							80					85	86						91									100
B61	B*40:11:02																						20					25			28										38	39												52														66						71		73							80					85	86														100
B-	B*40:110																													25														38	39			42					47					52														66						71	72	73	74						80																					
B-	B*40:113												11									20					25			28										38						43				47					52														66								73							80	81				85	86						91				95		97			100
B-	B*40:114:01:01~114:02												11						17			20					25			28										38	39									47					52														66								73							80					85	86						91				95					100
B-	B*40:116					4									11									20					25			28										38	39				43				47					52														66								73													85	86						91				95					100
B-	B*40:117												11							18								25														38	39				43				47					52		54													66				70		72	73							80						86						91				95					
B-	B*40:119													14						20					25			28										38	39												52														66						71		73					78		80																					
B-	B*40:12:01~12:02							6																20				24				28						33				37	38	39				43	44			47					52														66								73							80					85	86						91				95					100
B-	B*40:120																						20					25			28										38	39		41																														66						71		73							80					85					90										100
B-	B*40:124:01												11									20					25			28										38	39				43				47						53														66								73							80					85	86										95					100
B-	B*40:124:02												11									20					25			28										38	39				43				47						53														66								73							80					85	86						91				95					100
B-	B*40:128												11									20					25			28										38	39				43			46	47			50			52														66								73													85	86						91				95					100
B-	B*40:129																						20					25			28										38	39									47					52														66						71		73							80					85															100
B-	B*40:13													14				18	19						25														38	39												52		54																				70	71	72	73					78		80																					
B-	B*40:130:01~130:02												11									20					25			28										38	39				43				47					52														66						71		73							80					85	86						91									100
B-	B*40:132												11									20					25			28										38	39				43				47					52			55												66								73							80					85	86						91				95					100
B-	B*40:133Q													14						20					25			28										38	39												52														66						71							78		80					85															100
B-	B*40:136												11									20					25			28										38	39									47				51	52														66								73													85	86						91				95					100
B-	B*40:137																						20										28										38	39	40			43				47					52						58									66								73							80					85												95					100
B-	B*40:143													14						20					25			28										38	39												52														66						71		73							80					85															100
B-	B*40:146/204												11									20					25														38	39				43				47					52																										73							80					85	86						91				95					100
B-	B*40:148																						20					25			28											39												52														66						71		73	74						80					85				89											100
B-	B*40:149																						20					25			28									37	38	39				43									52														66								73							80					85	86						91				95					100
B-, B61	B*40:15~16:01:02												11			14						20					25			28											39							46	47					52														66								73					78							85				89									95					100
B-	B*40:157													14											25														38	39			42										52														66						71	72	73					78		80																					
B-	B*40:158												11									20					25			28											39									47																								66								73							80					85	86			89		91				95					100
B-	B*40:159																						20					25			28										38	39																										66						71		73	74						80					85		87													100
B-	B*40:160:01/233												11									20					25			28										38	39				43				47					52														66								73							80					85								91				95					100
B-	B*40:161																						20					25			28											39							46						52														66						71		73	74											85				89											100
B-	B*40:162																					19	20					25														38	39												52																							71		73	74						80					85															100
B-	B*40:163												11									20					25			28										38						43				47					52				56											66						71									80	81				85	86						91									100
B-	B*40:166										8		10	11									20					25														38	39				43				47					52																										73		75					80						86						91				95					
B-	B*40:174													14						20					25			28																					45						52														66						71							78		80	81				85				89											100

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Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																									
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																								
B-	B*40:178											11									20					25			28										38	39				43				47					52			55											66					71		73							80					85	86					91									100
B-	B*40:18																				20					25			28										38	39		41																									66					71		73					78		80					85															100
B-	B*40:180																				20					25			28										38	39														53													66					71		73					78		80					85															100
B-	B*40:183											11									20					25			28											39				43				47					52														66							73							80					85	86			89		91				95					100
B-	B*40:184							7													20					25			28										38	39																	56					61					66					71														85	86		88			91									100
B-	B*40:188			3								11														25													38	39				43				47					52														66							73							80						86					91				95				99	
B-	B*40:19														14				18							25													38	39													52		54												66				70	71	72	73					78		80																				
B-	B*40:198											11									20					25			28											39				43			46	47			50		52														66							73												85	86			89		91				95					100
B-	B*40:199											11									20					25			28										38	39				43				47					52				56										66														80					85	86					91				95					100
B61	B*40:20:01:01~20:01:02																				20					25			28										38	39																											66					71		73							80					85	86	87				91									100
B-	B*40:201														14											25													38	39			42										52														66					71	72	73					78		80					85											96				100
B-, B"Blank"	B*40:206/274/438N																				20					25			28																																						66																			85															100
B-	B*40:209														14						20								28										38	39													52														66					71		73					78		80					85									94						100
B-	B*40:21																				20								28										38	39	40			43				47					52						58								66							73							80					85	86					91				95					100
B-	B*40:210	1																			20					25			28										38	39				43									52														66							73							80					85	86					91				95					100
B-	B*40:220														14					19	20					25													38	39													52																			71		73					78		80					85															100
B-	B*40:226/266/290/359/371														14						20					25			28											39													52														66					71		73					78		80					85															100
B-	B*40:227											11									20					25													38	39				43				47					52																					73							80					85	86					91				95					
B-	B*40:23											11						17			20					25			28											39							46	47					52														66							73												85	86			89		91				95					100
B-, B"Blank"	B*40:230/256N																				20					25			28										38	39													52														66					71		73	74						80																				
B-	B*40:231											11						17			20					25			28										38	39								47				51	52														66							73												85	86					91				95					100
B-	B*40:232								8						14					19	20					25													38	39													52																			71		73					78		80					85															
B-	B*40:24																				20					25			28										38	39		41																									66					71		73					78		80					85					90										100
B-	B*40:242											11									20								28										38					43				47					52														66							73							80					85	86					91				95					100
B-	B*40:245											11									20					25			28		30								38	39				43				47					52														66							73							80					85	86									95					100
B-	B*40:248														14						20					25			28										38	39	40									49			52														66					71		73					78		80					85															100
B-	B*40:25								8		10	11									20					25	26		28										38	39				43				47					52																					73							80					85	86					91				95					
B21	B*40:26																				20					25			28											39						45			48				52														66					71									80					85	86			89		91									100
B61	B*40:27:03																				20					25			28										38	39																											66							73					78		80					85															100
B-	B*40:279											11									20					25			28										38	39				43				47				51	52														66							73												85	86					91				95					100
B-	B*40:28																				20					25			28																	45			48				52														66					71									80	81				85				89											100
B-	B*40:280											11									20					25			28										38	39				43				47																			66							73							80					85	86		88			91				95					100
B-	B*40:281											11														25			28										38	39				43				47					52														66							73							80					85	86					91				95					100
B-	B*40:282											11									20					25			28										38	39	40			43				47					52														66							73							80					85	86					91				95					100
B-	B*40:284																				20					25			28										38	39																											66					71		73							80					85		87													100
B-, B61	B*40:29/115														14						20					25			28										38	39													52																			71		73					78		80					85															
B-	B*40:292														14											25													38	39													52		54												66				70	71	72	73					78		80					85															100
B-	B*40:298:01~298:02											11									20					25			28										38	39				43				47					52														66							73	74						80					85										95					100
B-, B60	B*40:30/34											11									20					25			28										38	39				43				47					52														66							73			76				80					85										95					100
B-	B*40:305														14						20					25			28										38	39													52							59							66					71		73					78		80					85															100
B-	B*40:306/423																									25													38	39													52														66					71		73	74						80					85															100
B-	B*40:309														14						20					25			28											39													52														66					71		73					78		80					85				89											100
B60	B*40:31											11									20					25			28										38	39		41		43				47																			66							73					78		80					85										95					100
B-	B*40:313								8		10										20					25	26		28										38	39													52																			71		73	74						80					85															
B-	B*40:314																				20					25			28										38	39																						61					66					71		73					78		80					85			88												100
B-	B*40:32											11									20					25			28											39		41					46	47																			66							73					78							85				89						95					100
B-	B*40:322									9					14						20					25													38	39													52																			71		73					78		80					85															100
B-	B*40:324				4							11									20					25			28										38	39				43		45		47					52								60			63			66	67																		85	86					91				95					100
B-	B*40:328																				20	21				25			28										38	39				43				47					52														66							73							80					85	86					91				95					100
B-	B*40:33											11									20					25			28										38	39		41		43				47																			66							73							80					85	86					91				95					100
B-	B*40:330																				20					25			28										38	39																											66					71		73	74						80					85			88												100
B-	B*40:335														14											25													38	39													52														66					71		73					78		80					85															100
B-	B*40:340																		18							25													38	39													52		54												66				70	71	72	73	74						80																				
B-	B*40:342																				20					25			28										38	39								47					52												64		66					71		73	74						80					85															100
B-	B*40:343																				20					25			28										38	39						45							52														66	67				71									80					85															100
B-	B*40:344											11														25													38	39				43				47					52														66							73							80						86					91				95					
B-	B*40:351																				20					25			28										38	39	40												52														66					71		73							80					85	86					91									100
B-	B*40:352											11									20					25			28										38	39				43				47																			66							73							80					85	86	87			90					95					100
B-	B*40:355											11						17			20					25			28											39								47					52														66							73							80					85	86			89		91				95					100
B-	B*40:36/368											11									20					25			28										38	39				43				47														61					66							73							80					85	86		88			91				95					100
B-	B*40:362																				20					25			28										38	39										49			52														66					71		73	74						80					85															100
B-	B*40:364																				20					25			28										38	39	40									49			52														66					71		73	74						80					85															100
B-	B*40:365																				20								28										38	39	40			43				47					52														66							73							80					85	86					91			94	95					100
B-	B*40:366																				20					25			28	29									38	39													52														66					71		73							80					85															100
B-	B*40:37														14						20					25													38	39													52														66					71		73					78		80																				
B-	B*40:376																				20					25			28											39													52														66					71		73	74						80					85															100
B-	B*40:388																				20					25			28										38	39													52														66					71		73	74						80																				100
B41	B*40:39														14						20					25			28										38	39													52				56										66					71							78		80					85															100
B-	B*40:394											11														25													38	39				43				47					52		54												66				70		72	73							80					85	86					91				95					100
B-, B"Blank"	B*40:40/229/399N	1													14						20					25			28										38	39													52														66					71		73					78		80					85															100
B-	B*40:414												12								20					25			28										38	39																											66					71		73					78		80					85															100
B-	B*40:420											11			14						20					25			28										38	39								47					52														66					71		73					78		80					85															100
B-	B*40:424							7				11									20					25			28										38	39				43				47					52				56										66																			85	86					91				95					100
B"Blank"	B*40:428N											11									20					25													38	39				43				47					52														66							73							80					85	86					91				95					100
B-	B*40:429																				20					25			28										38	39														53													66					71		73							80					85															100
B-	B*40:43/134											11									20					25			28										38	39				43				47					52														66							73							80						86					91				95					100

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LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																			
B-	B*40:430						6					11									20				24				28					33					38	39				43				47					52														66							73							80					85	86						91				95					100
B-	B*40:434																	17			20					25			28										38	39												52														66						71		73	74						80					85															100
B-	B*40:44																					20					25			28										38	39		41																								66						71		73	74						80					85															100
B-	B*40:449																					20					25			28										38	39							47					52														66						71		73	74						80					85															100
B-	B*40:45											11			14			17			20					25			28										38	39							47					52														66								73					78		80					85											95					100
B-	B*40:457														14						20								28										38	39	40							47					52														66						71		73					78		80					85															100
B-	B*40:458												12								20					25			28										38	39						45										55															66	67				71									80					85															100
B-	B*40:46											11									20				24				28					33					38	39				43				47					52														66								73							80					85	86						91				95					100
B-	B*40:462																					20					25			28										38	39				43				47		49			52														66								73							80					85	86						91				95					100
B40	B*40:47						6					11														25																38	39			42	43				47					52														66								72	73							80						86						91				95					
B-, B60	B*40:48/377											11									20					25			28							34				38	39				43				47																								66								73							80					85	86						91				95					100
B-, B61	B*40:50:01:01~50:01:02/200														14						20					25			28										38	39													52														66						71		73					78		80																						100
B-	B*40:51											11						17			20					25			28																						47					52				56												66						71									80	81				85	86			89		91									100
B60	B*40:52											11									20					25			28										38	39				43				47																								66								73							80					85	86	87				91				95					100
B61	B*40:53											11									20					25			28										38	39							47					52														66						71		73	74						80					85															100
B-	B*40:58/219														14						20					25			28										38	39							47					52														66						71		73					78		80					85															100
B-	B*40:59											11									20					25			28										38	39				43				47																								66								73							80					85		87			90						95					100
B-	B*40:60											11									20					25			28		30								38	39				43				47																								66								73							80					85	86				90						95					100
B-	B*40:61			2									11									20					25															38	39				43				47					52																								73							80					85	86						91				95					100
B-	B*40:63					4							11									20					25			28										38	39				43		45		47					52														66	67													80					85	86						91				95					100
B40, B-	B*40:64:02/99																					20					25			28										38	39													52														66						71		73							80					85						91									100
B-	B*40:67/153/239/249/262											11									20					25			28											39				43				47					52														66								73							80					85	86						91				95					100
B-	B*40:68										8		10									19	20					25															38	39													52																						71		73							80					85														
B-	B*40:69/357											11									20					25			28										38	39				43				47					52																								73							80					85	86						91				95					
B-	B*40:71																					20					25			28							34				38	39								45																							66	67				71							78		80					85															100
B-	B*40:75											9												20					25															38	39													52																						71		73	74						80					85															100
B-	B*40:76/135/400											11														25															38	39				43				47					52														66								73							80					85	86						91				95					100
B-	B*40:77											11									20					25			28										38	39							47																	61					66								73							80					85	86		88				91				95					100
B-	B*40:80											11			14						20					25			28										38	39				43				47					52														66								73					78		80					85											95					100
B-	B*40:86																					20					25			28										38	39																											61					66						71		73	74						80					85			88														100
B-	B*40:90														14						20					25			28										38	39													52														66						71		73					78							85															100
B40	B*40:92											11									20					25			28										38	39				43		45		47					52														66	67				71									80					85	86						91									100
B-	B*40:93																					20				24				28					33					38	39													52														66						71		73	74						80					85															100
B-	B*40:95																					20					25			28											39										48				52														66						71		73	74						80					85				89													100
B-	B*40:96																													25															38	39			42												52														66						71	72	73	74						80																				
B-	B*40:98																					20					25			28											39		41					46																									66								73					78							85				89								95					100
B41, B-	B*41:01:01:01~01:05/01:07/07/14/20/25/28/34~35/37/57/59/61/64											11									20					25			28	29									36		38	39									47				51	52				56												66																											85								93							100
B41, B-	B*41:01:06/16/48											11									20					25			28										36		38	39									47				51	52				56												66																											85								93							100
B41, B-, B"Blank"	B*41:02:01:01~02:04/02:06~02:08/11/13/38~39/43/45N/49/65											11			14						20					25			28										36		38	39									47				51	52				56												66															78										85								93							100
B41, B-	B*41:02:05/27											11			14						20					25			28										36		38	39									47				51	52				56												66															78																				93							100
B41	B*41:02:09											11			14						20					25			28										36		38	39									47	48		50	51	52				56						63			66															78										85								93							100
B41	B*41:03:01~03:02											11									20					25			28										36		38	39									47				51	52				56												66																											85	86						91		93							100
B-	B*41:04											11									20					25			28										36		38	39		41						47				51					56												66															78										85					90			93							100
B-	B*41:05/26											11														25				29									36		38	39									47				51	52				56												66																											85								93							100
B-	B*41:06/29/32											11									20					25			28	29												38	39									47				51	52				56												66																											85								93							100
B-	B*41:08											11									20					25			28														38	39									47				51	52				56												66																											85	86						91		93		95					100
B-	B*41:09											11									20					25			28	29												38	39									47				51	52				56												66					71																		85								93							100
B-	B*41:10/24/52											11									20					25			28										36		38	39									47				51					56												66															78										85								93							100
B-	B*41:12											11									20					25			28	29									36		38	39	40							47				51	52				56												66																											85								93							100
B-	B*41:15											11			14						20					25			28														38	39									47				51	52				56												66															78										85								93							100
B-	B*41:17											11									20					25			28	29									36		38									45		47				51	52																				66	67																									85															100
B-	B*41:18											11									20					25			28										36		38	39									47				51					56												66															78										85			88						93							100
B-	B*41:19											11			14						20					25			28										36		38	39									47				51	52																			66								73					78									85															100
B-	B*41:21											11									20					25			28	29									36		38	39		41						47				51					56												66																											85								93							100
B-	B*41:22											11									20					25			28	29									36	37	38	39									47				51	52				56												66																											85								93							100
B-	B*41:23											11			14						20					25															36		38	39									47				51	52				56												66															78										85								93							100
B-	B*41:30/44											11									20					25			28	29									36		38	39									47				51					56												66																											85								93							100
B-	B*41:31											11			14						20					25															36		38	39									47				51	52				56																											78										85								93							100
B-	B*41:33																					20					25			28	29									36		38	39									47				51	52				56												66																											85								93							100
B-	B*41:36											11			14						20					25			28										36		38	39	40							47				51	52				56												66															78										85								93							100
B-	B*41:40											11			14						20					25			28										36			39									47				51	52				56												66															78										85								93							100
B-	B*41:41~42/58											11			14						20								28										36		38	39									47				51	52				56												66															78										85								93							100
B-	B*41:46											11			14				18	19						25															36		38	39									47				51	52		54		56																		70		72						78																			93								
B-	B*41:47														14						20					25			28										36		38	39									47				51	52				56												66															78																				93							100
B-	B*41:50											11									20					25			28	29									36		38	39									47				51					56					61					66																											85			88						93							100
B-	B*41:51											11									20					25			28										36		38	39									47				51					56												66															78										85		87								93							100
B-	B*41:53											11									20					25			28	29									36			39									47				51	52				56												66																											85								93							100
B-	B*41:54											11									20					25			28	29									36		38	39									47				51	52				56												66																											85								93								
B-	B*41:55											11			14						20					25			28										36		38	39									47				51	52				56												66															78					82			85								93							100
B-	B*41:56Q											11									20					25			28	29									36		38	39									47				51	52																				66																											85															100
B-	B*41:60											11							18								25				29									36		38	39									47				51	52		54		56												66				70		72																											93								
B-	B*41:62											11			14						20					25			28														38	39								45	46	47						52														66	67				71							78									85															100
B-	B*41:63											11									20					25			28										36		38	39		41						47				51					56												66																											85	86						91		93							100

WORKSHEET

LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ______________________

Sample ID ______________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025
Reaction Results (mark positive locations)																										
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%
Serology Equivalent	**Allele Group**																									
B-	B*41:66											11									20					25
B42, B-	B*42:01:01:01~01:04/10/15/25/28	1							8		10				14						20			23	24	
B42, B-	B*42:02:01:01~02:02/17~18								8		10				14						20			23	24	
B-	B*42:04	1							8		10										20			23	24	
B-	B*42:05:01~05:02	1							8		10				14						20			23	24	
B-	B*42:06	1							8		10										20			23	24	
B-	B*42:07	1	2						8		10				14						20				24	
B-	B*42:08	1							8		10				14						20			23	24	
B-	B*42:09								8		10										20			23	24	
B-	B*42:11	1													14						20				24	
B-	B*42:12	1							8		10				14						20			23	24	
B-	B*42:13	1							8		10										20			23	24	
B-	B*42:14	1							8		10				14						20			23	24	
B-	B*42:16	1							8		10										20			23	24	
B-	B*42:19	1							8		10				14						20			23	24	
B-	B*42:20	1							8		10										20			23	24	
B-	B*42:21	1							8		10				14						20			23	24	
B-	B*42:22	1							8		10				14									23	24	
B-	B*42:23	1							8		10				14						20			23	24	
B-	B*42:24	1							8		10				14						20				24	
B-	B*42:26								8		10				14					19	20				24	
B-	B*42:27								8		10				14						20			23	24	
B44, B-, B"Blank"	B*44:02:01:01~02:01:43/02:04~02:06/02:09~02:10/02:12/02:14~02:16/02:20~02:21/02:24~02:27/02:29~02:30/02:32~02:34/02:36/02:42/02:44/02:46~02:49/02:52~02:53/02:55~02:56/02:58~02:64/19N/23N/27:01:01~27:01:02/27:03/33/52N~53:02/59:01~59:02/63/66~68/71~72/74/80/84:02/87/93/116/118~119/121/137~138Q/151/168/173/177/179/185/187/191/208/214/216/218~219/229/235/238/240/242~243/249/253/260~262/267N/270:01~270:02/273/279/292~293/296~297/301/303N/306N/311/313/315/320~322/327/329/331/334N~335/337~338/341N/343~344/437/439/441/448N~449N/451/453/457/461~462/464:01:01~464:01:02/467~468/470/473/477~479/484/492												12													25
B44, B-, B"Blank"	B*44:02:02/02:22/02:65/113/171N/326												12													25
B44, B-	B*44:02:03/102/112/289/482												12													25
B44, B-, B"Blank"	B*44:02:07/48/100/149N/211/291												12													25
B44, B-, B"Blank"	B*44:02:08/91/101/195N/220												12													25
B44	B*44:02:11				4								12													25
B44, B-	B*44:02:13/02:41/145/172/200~201/241/255/265												12													
B44, B-	B*44:02:17/02:35/02:51/126:01~126:02/148/244/312												12													25
B44	B*44:02:18												12													25
B44, B-	B*44:02:19/02:38/206												12													25
B44	B*44:02:23/02:39												12													25
B44, B-, B"Blank"	B*44:02:28/02:54/27:02/104/274/314N/480Q												12													25
B44, B-	B*44:02:31/02:37/02:40/02:57/86/212/287/463												12													25
B44	B*44:02:43/02:66												12													25
B44, B-	B*44:02:45/02:50/11/127/152/196												12													25

		026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050
Reaction Results (mark positive locations)																										
Cut Off Value		30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%
Serology Equivalent	**Allele Group**																									
B-	B*41:66			28								36		38	39								47			
B42, B-	B*42:01:01:01~01:04/10/15/25/28											36	37	38	39											
B42, B-	B*42:02:01:01~02:02/17~18											36	37	38	39											
B-	B*42:04											36	37	38	39											
B-	B*42:05:01~05:02												37	38	39											
B-	B*42:06											36	37	38	39											
B-	B*42:07											36	37	38	39											
B-	B*42:08												37	38	39											
B-	B*42:09											36	37	38	39											
B-	B*42:11			28					33			36	37	38	39											
B-	B*42:12											36	37	38	39											
B-	B*42:13											36	37	38	39											
B-	B*42:14												37	38	39											
B-	B*42:16											36	37	38	39		41									
B-	B*42:19											36	37		39											
B-	B*42:20											36	37	38	39											
B-	B*42:21											36		38	39	40										
B-	B*42:22											36	37	38	39											
B-	B*42:23											36	37	38												
B-	B*42:24											36	37	38	39											
B-	B*42:26											36	37	38	39											
B-	B*42:27											36		38	39	40										
B44, B-, B"Blank"	B*44:02:01:01~02:01:43/02:04~02:06/02:09~02:10/02:12/02:14~02:16/02:20~02:21/02:24~02:27/02:29~02:30/02:32~02:34/02:36/02:42/02:44/02:46~02:49/02:52~02:53/02:55~02:56/02:58~02:64/19N/23N/27:01:01~27:01:02/27:03/33/52N~53:02/59:01~59:02/63/66~68/71~72/74/80/84:02/87/93/116/118~119/121/137~138Q/151/168/173/177/179/185/187/191/208/214/216/218~219/229/235/238/240/242~243/249/253/260~262/267N/270:01~270:02/273/279/292~293/296~297/301/303N/306N/311/313/315/320~322/327/329/331/334N~335/337~338/341N/343~344/437/439/441/448N~449N/451/453/457/461~462/464:01:01~464:01:02/467~468/470/473/477~479/484/492													38	39			42			45		47			
B44, B-, B"Blank"	B*44:02:02/02:22/02:65/113/171N/326													38	39			42			45		47			
B44, B-	B*44:02:03/102/112/289/482														39			42			45		47			
B44, B-, B"Blank"	B*44:02:07/48/100/149N/211/291													38	39			42			45		47			
B44, B-, B"Blank"	B*44:02:08/91/101/195N/220													38	39			42			45		47			
B44	B*44:02:11													38	39			42			45		47			
B44, B-	B*44:02:13/02:41/145/172/200~201/241/255/265													38	39			42			45		47			
B44, B-	B*44:02:17/02:35/02:51/126:01~126:02/148/244/312													38	39			42			45		47			
B44	B*44:02:18														39			42			45		47			
B44, B-	B*44:02:19/02:38/206													38	39			42			45		47			
B44	B*44:02:23/02:39													38				42			45		47			
B44, B-, B"Blank"	B*44:02:28/02:54/27:02/104/274/314N/480Q													38				42			45		47			
B44, B-	B*44:02:31/02:37/02:40/02:57/86/212/287/463													38	39			42			45					
B44	B*44:02:43/02:66													38	39			42					47			
B44, B-	B*44:02:45/02:50/11/127/152/196													38	39						45		47			

		051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075
Reaction Results (mark positive locations)																										
Cut Off Value		30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%
Serology Equivalent	**Allele Group**																									
B-	B*41:66	51	52				56										66								74	
B42, B-	B*42:01:01:01~01:04/10/15/25/28	51	52				56																			75
B42, B-	B*42:02:01:01~02:02/17~18	51	52				56																			75
B-	B*42:04	51	52				56																		74	75
B-	B*42:05:01~05:02	51	52				56																			75
B-	B*42:06	51					56					61														75
B-	B*42:07	51	52				56																			
B-	B*42:08	51	52				56															71				75
B-	B*42:09	51					56																			75
B-	B*42:11	51	52				56										66									
B-	B*42:12	51	52																							75
B-	B*42:13	51	52				56																			75
B-	B*42:14	51	52				56																			75
B-	B*42:16	51					56																			75
B-	B*42:19		52				56																			75
B-	B*42:20	51					56																			75
B-	B*42:21	51	52				56																			75
B-	B*42:22	51	52				56																			75
B-	B*42:23	51	52				56																			75
B-	B*42:24	51	52				56																			
B-	B*42:26	51	52				56																			
B-	B*42:27	51	52				56																			75
B44, B-, B"Blank"	B*44:02:01:01~02:01:43/02:04~02:06/02:09~02:10/02:12/02:14~02:16/02:20~02:21/02:24~02:27/02:29~02:30/02:32~02:34/02:36/02:42/02:44/02:46~02:49/02:52~02:53/02:55~02:56/02:58~02:64/19N/23N/27:01:01~27:01:02/27:03/33/52N~53:02/59:01~59:02/63/66~68/71~72/74/80/84:02/87/93/116/118~119/121/137~138Q/151/168/173/177/179/185/187/191/208/214/216/218~219/229/235/238/240/242~243/249/253/260~262/267N/270:01~270:02/273/279/292~293/296~297/301/303N/306N/311/313/315/320~322/327/329/331/334N~335/337~338/341N/343~344/437/439/441/448N~449N/451/453/457/461~462/464:01:01~464:01:02/467~468/470/473/477~479/484/492	51				55											66	67				71	72			
B44, B-, B"Blank"	B*44:02:02/02:22/02:65/113/171N/326	51				55												67				71	72			
B44, B-	B*44:02:03/102/112/289/482	51				55											66					71	72			
B44, B-, B"Blank"	B*44:02:07/48/100/149N/211/291	51				55											66	67				71	72			
B44, B-, B"Blank"	B*44:02:08/91/101/195N/220	51															66	67				71	72			
B44	B*44:02:11					55											66	67				71	72			
B44, B-	B*44:02:13/02:41/145/172/200~201/241/255/265	51				55											66	67				71	72			
B44, B-	B*44:02:17/02:35/02:51/126:01~126:02/148/244/312	51				55											66	67					72			
B44	B*44:02:18	51				55											66	67				71	72			
B44, B-	B*44:02:19/02:38/206	51				55											66	67				71				
B44	B*44:02:23/02:39	51															66	67				71	72			
B44, B-, B"Blank"	B*44:02:28/02:54/27:02/104/274/314N/480Q	51				55											66	67				71	72			
B44, B-	B*44:02:31/02:37/02:40/02:57/86/212/287/463	51				55											66	67				71	72			
B44	B*44:02:43/02:66	51				55											66					71	72			
B44, B-	B*44:02:45/02:50/11/127/152/196	51				55											66	67				71				

		076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																										
Cut Off Value		35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																									
B-	B*41:66										85								93							100
B42, B-	B*42:01:01:01~01:04/10/15/25/28			78															93							
B42, B-	B*42:02:01:01~02:02/17~18			78															93							
B-	B*42:04																		93							
B-	B*42:05:01~05:02			78															93		95					
B-	B*42:06			78										88					93							
B-	B*42:07			78															93							
B-	B*42:08			78															93							
B-	B*42:09			78									87						93							
B-	B*42:11			78							85								93							100
B-	B*42:12			78															93							
B-	B*42:13																		93							
B-	B*42:14			78															93							
B-	B*42:16			78															93							
B-	B*42:19			78		80									89											
B-	B*42:20			78										88					93							
B-	B*42:21			78															93							
B-	B*42:22			78															93							
B-	B*42:23			78															93							
B-	B*42:24			78															93							
B-	B*42:26			78															93							
B-	B*42:27			78															93							
B44, B-, B"Blank"	B*44:02:01:01~02:01:43/02:04~02:06/02:09~02:10/02:12/02:14~02:16/02:20~02:21/02:24~02:27/02:29~02:30/02:32~02:34/02:36/02:42/02:44/02:46~02:49/02:52~02:53/02:55~02:56/02:58~02:64/19N/23N/27:01:01~27:01:02/27:03/33/52N~53:02/59:01~59:02/63/66~68/71~72/74/80/84:02/87/93/116/118~119/121/137~138Q/151/168/173/177/179/185/187/191/208/214/216/218~219/229/235/238/240/242~243/249/253/260~262/267N/270:01~270:02/273/279/292~293/296~297/301/303N/306N/311/313/315/320~322/327/329/331/334N~335/337~338/341N/343~344/437/439/441/448N~449N/451/453/457/461~462/464:01:01~464:01:02/467~468/470/473/477~479/484/492																91									
B44, B-, B"Blank"	B*44:02:02/02:22/02:65/113/171N/326																91									
B44, B-	B*44:02:03/102/112/289/482																91									
B44, B-, B"Blank"	B*44:02:07/48/100/149N/211/291																									
B44, B-, B"Blank"	B*44:02:08/91/101/195N/220																91									
B44	B*44:02:11																91									
B44, B-	B*44:02:13/02:41/145/172/200~201/241/255/265																91									
B44, B-	B*44:02:17/02:35/02:51/126:01~126:02/148/244/312																91									
B44	B*44:02:18																91									
B44, B-	B*44:02:19/02:38/206																91									
B44	B*44:02:23/02:39																91									
B44, B-, B"Blank"	B*44:02:28/02:54/27:02/104/274/314N/480Q																91									
B44, B-	B*44:02:31/02:37/02:40/02:57/86/212/287/463																91									
B44	B*44:02:43/02:66																91									
B44, B-	B*44:02:45/02:50/11/127/152/196																91									

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Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																							
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	10%	40%	15%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																					
B44, B-, B"Blank"	B*44:03:01:01~03:01:35/03:03~03:05/03:09~03:12/03:14/03:18/03:21/03:23~03:25/03:32~03:34/03:38~03:39/03:48/03:53/03:56~03:57/13/26/36/38~39/85/94/98/115/122/125/128:02/141/157/161/164~165/167/178/183/186:01/189/192:01/192:04/198N/202/204:02/207/222/228/231/233/237N/239/252/266:02/272/278/280~281:01/283~284/286/298/302/304/307/309N~310N/317/323/325/328N/336/346/443/450/456/466N/471~472/474/476/483/485/488/491												12													25													38	39			42			45		47								55											66	67				71	72								80											91									
B44, B-, B"Blank"	B*44:03:02:01~03:02:02/03:13/03:15/03:27/03:44/03:52/03:54/03:58/96/110/128:01/143/186:02/192:02~192:03/197/204:01/248/259/266:01/271/281:02/305/324/333N/440/444/469/481/486~487/489~490												12													25													38	39			42			45		47								55											66	67				71	72								80																				
B44, B-	B*44:03:06/03:22/03:46/45/144/223/250																									25													38	39			42			45		47								55											66	67				71	72								80											91									
B44, B-	B*44:03:07~03:08/03:20/103/155												12													25													38	39			42			45										55											66	67				71	72								80											91									
B44, B-, B"Blank"	B*44:03:16/03:37/03:51/61N/81/111												12																										38	39			42			45		47								55											66	67				71	72								80											91									
B44, B-	B*44:03:17/37:01/234												12													25													38	39			42			45		47																				66	67				71	72								80											91									
B44, B-	B*44:03:19/03:31/199												12													25													38	39			42			45										55											66	67				71	72								80																				
B44	B*44:03:26												12													25													38	39			42					47																				66	67				71	72								80																				
B44, B-	B*44:03:28/03:42~03:43/175/460												12													25													38	39			42					47								55											66					71	72								80											91									
B44	B*44:03:29												12													25													38				42			45		47								55											66	67				71	72								80																				
B44, B-	B*44:03:30/07/194												12																										38	39			42			45		47								55											66	67				71	72								80																				
B44, B-	B*44:03:35~03:36/03:45/32/69:01/332												12													25													38	39			42			45		47								55												67				71	72								80											91									
B44	B*44:03:40												12													25													38	39			42			45		47	48		50					55											66	67				71	72								80																				
B44, B-	B*44:03:41/03:47/35/73/89/142/147												12													25													38	39			42			45		47								55											66	67				71	72																			91									
B44, B-	B*44:03:49/454												12													25													38	39						45		47								55											66	67				71									80																				
B44, B-	B*44:03:50/114/318												12													25													38				42			45		47								55											66	67				71	72								80											91									
B44	B*44:03:55												12													25														39			42			45		47								55											66	67				71	72								80											91									
B44	B*44:04												12													25													38	39			42				46	47								55	56										66					71	72																			91									
B44, B-, B"Blank"	B*44:05:01:01~05:01:04/14/51/88/133/136/139~140/162/217N/226/288/308/316/465																									25													38	39			42			45		47				51				55											66	67				71	72																			91									
B44	B*44:05:02																									25													38	39			42					47				51				55											66					71	72																			91									
B44	B*44:05:03																									25													38	39						45		47				51				55											66	67				71																				91									
B44	B*44:05:04																									25													38	39			42			45						51				55											66	67				71	72																			91									
B44	B*44:06								8		10		12						18	19																				38	39						45		47				51				55							62					67		69		71	72																			91			94						
B44	B*44:08												12																										38	39			42			45		47				51				55			58									66	67				71	72																			91									
B45	B*44:09												12								20					25			28										38	39						45		47				51				55											66	67				71														85						91									100
B44	B*44:10																									25									34				38	39			42			45		47								55											66	67				71	72								80				84						90										
B-	B*44:105												12													25													38	39			42			45		47								55									64		66	67				71	72								80											91									
B-	B*44:106												12													25													38	39			42			45		47				51				55											66	67				71	72						78																							
B-	B*44:107																									25													38	39		41	42			45		47								55											66	67				71	72								80											91									
B"Blank", B-	B*44:108N/159												12													25													38	39			42			45		47								55											66	67					72								80											91									
B-	B*44:109												12													25													38	39			42			45		47								55											66	67				71	72								80					85						91					96				100
B-	B*44:117																									25													38	39			42			45		47				51				55											66	67				71	72																88			91									
B44	B*44:12								8		10		12													25	26												38	39			42			45		47				51				55												67				71	72																			91									
B-	B*44:120												12													25													38				42			45		47																				66	67				71	72								80											91									
B-	B*44:123																									25													38	39		41	42			45		47				51				55											66	67				71	72																			91									
B-	B*44:124												12													25													38	39			42					47								55											66					71	72	73							80																				
B-	B*44:130	1											12																					33				37	38	39			42			45										55											66	67				71	72								80											91									
B-	B*44:131												12								20					25			28										38	39						45						51				55											66	67				71														85						91									100
B-	B*44:132												12													25													38	39			42					47				51					56										66					71	72																			91		93							
B-	B*44:134																																						38	39			42			45		47				51				55											66	67				71	72																			91			94						
B-	B*44:135																									25													38	39			42			45		47								55											66	67				71	72						78		80																				
B-	B*44:146												12					17								25		27												39			42			45		47								55										65	66					71	72																	89		91									
B12	B*44:15:01:01~15:01:02										11															25				29									38	39			42			45		47				51				55											66	67				71	72													85					90						96				100
B-	B*44:150												12													25														39			42				46	47																				66						72	73																89		91				95					
B-	B*44:153												12													25													38	39			42			45		47			50					55											66	67				71	72				76				80																				
B-	B*44:154/180/300												12													25													38	39			42			45		47								55											66	67				71									80											91									
B-	B*44:156												12									21			24										33				37	38	39			42		44	45		47								55											66	67				71	72								80											91									
B-	B*44:158																									25													38	39			42			45		47				51				55											66	67				71	72						78																							
B47	B*44:16												12													25													38	39			42					47				51																66					71	72	73																			91									
B-	B*44:163:01												12													25													38	39			42					47								55	56										66					71	72								80											91									

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Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																				
B-	B*44:163:02											12											25													38	39			42					47							55	56											66						71	72								80																				
B-	B*44:166													14											25											36		38	39			42					47					51	52				56											66						72						78															93							
B-	B*44:169											12					17									25													38	39			42			45		47					51				55															66	67					71	72																				91									
B44	B*44:17																									25													38	39			42			45		47					51				55															66	67					71	72																	87					91									
B-	B*44:170/455											12											25													38	39						45		47					51				55															66	67					71	72																				91									
B-	B*44:174				4								12											25													38	39			42			45		47									55															66						71	72								80											91									
B-	B*44:176											12											25													38	39			42			45		47					51				55															66	67					71	72														85						91					96				100
B-	B*44:18										11							18							25				29											38	39						45		47					51			54	55															66	67			70	71	72																					90										
B-	B*44:181											12											25													38	39			42			45		47									55															66	67					71	72								80		82																			
B-	B*44:182											12					17									25													38	39			42			45		47									55															66	67					71	72								80											91									
B-	B*44:184													14											25													38	39			42			45		47						52			55															66	67					71	72						78		80																				
B-	B*44:188						6						11	12											25													38	39			42			45		47									55															66	67					71	72								80											91									
B-	B*44:190											12											25													38				42					47					51					56											66						71	72									81										91		93							
B-	B*44:20											12											25													38	39			42			45		47					51				55															66	67					71	72		74																								
B-	B*44:203:01											12											25													38				42			45		47									55															66	67					71	72								80	81										91									
B-	B*44:203:02											12											25													38				42			45		47									55															66	67					71	72								80	81																			
B-	B*44:205:01											12											25													38	39			42			45		47		49						55															66	67					71	72								80											91									
B-	B*44:205:02											12											25													38	39			42			45		47		49						55															66	67					71	72								80																				
B-	B*44:209											12											25					30								38	39			42			45		47									55															66	67					71	72								80																				
B-	B*44:21											12											25													38	39			42					47					51				55															66						71	72	73																			91									
B-	B*44:210:01											12												24									33					38	39			42			45		47									55															66	67					71	72								80											91									
B-	B*44:210:02						6					12												24									33					38	39			42			45		47									55															66	67					71	72								80											91									
B-	B*44:213													14											25													38	39			42			45		47					51	52			55															66	67					71	72						78																					
B-	B*44:22											12											25													38	39			42			45		47					51				55												64		66	67					71	72																				91									
B-	B*44:221											12											25												37	38	39			42			45		47					51				55															66	67					71	72																				91									
B-	B*44:224	1										12											25												37	38	39			42			45										55															66	67					71	72								80											91									
B-	B*44:225											12																								38	39	40		42			45		47					51				55															66	67					71	72																				91									
B-	B*44:227											12											25													38	39						45		47									55															66	67					71	72								80																				
B-	B*44:230																									25													38	39			42			45		47					51				55															66	67					71	72																86	87					91									
B-	B*44:232								8		10		12						19						25													38	39			42			45		47									55																67					71	72								80											91									
B-	B*44:236																									25													38	39			42			45		47					51				55															66	67					71	72																86															
B-	B*44:24											12											25													38	39			42			45		47					51				55															66	67					71	72											82										91									
B-	B*44:245											12											25													38	39	40		42			45		47									55															66	67					71	72								80											91									
B-	B*44:247/295											12											25														39			42			45		47									55															66						71	72								80																				
B-	B*44:25																		18							25													38	39						45		47					51			54	55															66	67			70	71	72																				91									
B-	B*44:251																									25													38	39			42			45		47									55															66	67					71	72								80								88			91									
B-	B*44:254											12								20					25													38	39						45		47					51				55															66	67					71																						91									
B-	B*44:256																									25													38	39			42			45		47									55															66	67					71	72								80										90										
B-	B*44:257			3								12											25													38	39						45		47					51				55															66	67					71																						91								99	
B-	B*44:258											12											25												37	38	39			42			45		47									55															66	67					71	72								80											91									
B-	B*44:263								8	9	10																25													38	39			42			45		47					51				55																67					71	72																				91									
B-	B*44:268											12											25													38	39			42					47										56											66						71	72								80																				
B-	B*44:269											12											25													38	39	40		42			45		47		49		51				55															66	67					71	72																				91									
B-	B*44:275											12											25													38				42			45		47														60						66	67					71	72									81										91									
B-	B*44:276																									25													38	39			42			45		47																										66	67					71	72								80							87			90										
B-	B*44:277											12								20					25			28											38	39						45		47									55															66	67					71									80											91									100
B-	B*44:28:01											12											25													38	39			42			45	46	47									55															66	67					71	72																												
B-	B*44:28:02											12											25													38	39			42			45	46	47									55															66	67					71	72																				91									
B-	B*44:282																									25													38	39			42			45		47									55															66	67					71	72								80																				
B-, B44	B*44:29/285							7				12											25													38	39			42			45		47									55															66	67					71	72																				91									
B-	B*44:290											12											25													38				42			45		47																										66	67					71	72								80	81										91									
B-	B*44:299											12					17									25													38	39			42			45		47									55															66	67					71	72																				91									
B-	B*44:30/160Q/215											12											25													38	39			42					47																										66	67					71	72								80											91									
B44	B*44:31																									25													38	39			42	43				47							52			55															66						72	73						80						86					91				95					
B-	B*44:339																									25									34				38	39			42			45		47									55															66	67					71	72		74						80																				
B-	B*44:34:01											12											25													38	39			42			45		47					51				55								62				66	67					71	72																				91									
B-	B*44:34:02											12											25													38	39	40		42			45		47					51				55															66	67					71	72																				91									
B-	B*44:340																									25													38	39			42			45		47									55															66	67					71	72								80										90	91									
B-	B*44:342											12											25											36		38	39			42			45		47					51				55															66	67						72																				91									
B"Blank", B-	B*44:345N/458											12											25													38	39						45		47									55															66	67					71									80											91									
B-	B*44:37:02/294											12											25													38	39			42			45		47																										66	67					71	72								80																				
B44	B*44:40											12																						33					38	39			42			45		47									55															66	67					71	72								80											91									
B-	B*44:41:01											12											25													38	39			42			45		47					51				55															66	67					71	72																86							91									
B-	B*44:41:02											12											25													38	39			42			45		47					51				55															66	67					71	72																86															
B21	B*44:42																									25													38	39			42			45		47					51																						66	67					71	72																				91									
B44	B*44:43:01																									25													38	39			42			45		47									55															66	67					71	72								80							87					91									
B44	B*44:43:02																									25													38	39			42			45		47									55															66	67					71	72								80							87													
B"Blank"	B*44:438N											12											25			28											38	39						45		47									55															66	67					71									80					85						91									100
B-	B*44:44											12																						33					38	39			42			45		47					51				55															66	67					71	72																				91									
B-	B*44:442											12											25													38	39			42					47					51																						66	67					71	72																				91									
B-	B*44:445											12																										38	39			42			45		47					51				55															66	67					71	72																				91			94						
B-	B*44:446											12											25													38	39			42					47					51				55	56											66						71	72																				91		93							
B-	B*44:447											12											25													38	39			42			45		47									55															66	67						72								80																				
B-	B*44:452											12											25														39			42			45		47					51				55														65	66						71	72																		89		91									
B-	B*44:459																									25																		42			45		47	48				52																		66						71	72		74						80	81								89											
B-	B*44:46:01/129											12								20					25			28											38	39						45		47									55															66	67					71									80					85						91									100

WORKSHEET

LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ______________________ Sample ID ______________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																							
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																								
B-	B*44:46:02												12								20					25			28										38	39						45		47								55											66	67				71									80					85															100
B-	B*44:47												12													25													38	39			42			45		47								55											66	67				71	72		74						80																				
B-	B*44:475												12													25													38	39			42					47								55											66					71	72								80																				
B-	B*44:49												12									21				25													38	39			42			45		47				51				55											66	67				71	72																			91									
B-	B*44:50:01												12						18							25													38	39						45		47							54	55											66	67			70	71	72								80											91									
B-	B*44:50:02												12													25													38	39						45		47								55											66	67				71	72								80											91									
B-	B*44:50:03												12						18							25													38	39						45		47							54	55											66	67			70	71	72								80																				
B44	B*44:54												12													25													38	39			42			45		47								55											66	67				71	72						78		80																				
B44	B*44:55						6					11	12													25													38	39			42			45		47				51				55											66	67				71	72																			91									
B"Blank"	B*44:56N												12													25													38	39			42				46	47								55	56										66					71	72																												
B-	B*44:57												12																										38	39			42			45		47								55			58								66	67				71	72								80											91									
B"Blank"	B*44:58N																									25													38	39			42			45		47				51				55											66	67				71																				91									
B-	B*44:60												12																										38	39			42			45		47		49						55			58								66	67	68			71	72								80											91									
B-	B*44:62																									25													38	39			42			45		47	48		50	51	52			55											66	67				71	72																			91									
B-	B*44:64:01												12													25													38	39			42					47																			66					71	72	73							80																				
B-	B*44:64:02												12													25													38	39			42					47																			66					71	72	73							80											91									
B-	B*44:65												12													25													38	39			42			45		47								55											66	67				71	72								80						86					91									
B-	B*44:69:02												12													25													38	39			42			45		47								55												67				71	72								80																				
B-	B*44:70/264/330																									25													38	39			42			45		47				51				55											66	67				71	72																												
B-	B*44:75																				20					25													38	39						45		47				51				55											66	67				71																				91									
B-	B*44:76												12													25														39			42			45	46	47								55										65	66					71	72																	89		91									
B-	B*44:77/82																									25													38	39			42			45		47					52			55											66	67				71	72								80											91									
B-	B*44:78																									25													38				42			45		47				51															66	67				71	72																			91									
B-	B*44:79:01~79:02												12													25														39			42			45		47								55										65	66					71	72								80									89		91									
B-	B*44:83												12																										38	39	40		42			45		47				51				55											66	67				71	72																			91			94						
B-	B*44:84:01												12													25													38	39			42			45		47		49		51				55											66	67				71	72																			91									
B-	B*44:90												12								20					25													38	39						45		47				51				55												67				71				75																91									100
B-	B*44:92/319												12													25														39			42			45		47								55											66					71	72								80											91									
B-	B*44:95												12						18							25													38	39						45		47				51			54	55											66	67			70	71	72																			91									
B-	B*44:97												12			15										25													38	39			42			45		47				51				55												67				71																				91									
B-	B*44:99/193																									25																	42					47																			66						72																												
B45, B-	B*45:01:01:01~01:01:07/01:03~01:08/01:10/03/07/13/17~19/21/23/25											11									20					25			28	29									38	39						45		47				51				55											66	67				71														85					90										100
B45	B*45:01:02											11									20								28	29									38	39						45		47				51				55											66	67				71														85					90										100
B45, B-	B*45:01:09/16											11														25			28	29									38	39						45		47				51				55											66	67				71														85					90										100
B-	B*45:02											11									20					25			28	29									38	39						45		47				51				55											66	67				71														85			88		90										100
B-	B*45:04/24											11									20					25			28	29									38	39						45		47				51															66	67				71														85					90										100
B-	B*45:05				4							11									20					25			28	29									38	39						45		47								55											66	67				71														85					90										100
B-	B*45:06											11									20					25				29									38	39						45		47				51				55												67				71				75															90										100
B-	B*45:08											11									20					25			28	29									38	39								47				51					56										66					71														85					90			93							100
B-	B*45:09											11									20					25			28	29									38	39						45		47				51				55											66	67				71														85		87			90										100
B-	B*45:10											11									20					25			28	29									38	39								47				51															66					71		73												85					90										100
B-	B*45:11											11									20					25			28	29										39						45		47				51				55											66					71														85					90										100
B-	B*45:12											11									20					25			28	29									38	39						45		47				51				55				59							66	67				71														85					90										100
B-	B*45:14											11									20					25			28	29				34					38	39						45		47				51				55											66	67				71														85															100
B-	B*45:15											11									20					25			28	29									38	39								47				51				55											66					71														85					90										100
B-	B*45:20											11									20					25			28										38	39						45		47				51				55											66	67				71														85					90										100
B-	B*45:22								8		10	11									20						26		28	29									38	39						45		47				51				55												67				71														85					90				94						
B46, B"Blank", B-	B*46:01:01:01~01:03/01:06~01:11/01:13~01:18/01:21/01:23~01:25/01:28~02/15N~16/20/22~24/27/34~39/41N~42/46/48~50/52~58/60/63/65/68~69/71/76/80																				20							27												39	40					45		47											58		60											71						77									86	87		89		91									
B46	B*46:01:04																				20																			39	40					45		47											58													71						77									86	87				91									
B46, B-	B*46:01:05/31																				20							27												39	40					45		47											58		60											71															86	87		89		91					96				
B46, B-	B*46:01:12/01:27/04/28/47/78																				20							27												39	40					45		47													60											71						77									86	87		89		91									
B46	B*46:01:19																				20							27												39	40					45		47											58		60											71						77									86	87		89											
B46	B*46:01:20																				20																			39	40					45		47											58		60											71						77									86	87				91									
B46, B-	B*46:01:22/26																				20							27												39	40					45		47											58		60																	77									86	87		89		91									
B46, B"Blank"	B*46:01:26/79N																				20							27												39	40					45		47											58		60											71															86	87		89		91									
B46	B*46:03																				20																			39	40						46	47									56		58													71						77									86	87		89		91									
B46	B*46:05																				20							27												39	40					45		47											58		60				64							71						77									86	87		89		91									
B-	B*46:06																				20																		38	39	40			43				47											58															73				77			80						86	87				91				95					
B"Blank", B-	B*46:07N/51Q																				20							27												39	40							47											58		60											71						77									86	87		89		91									
B-	B*46:08																				20																			39	40					45		47											58													71						77			80						86	87		89		91									
B-	B*46:09																				20																		38	39	40					45		47											58		60							67				71						77									86	87				91									
B-	B*46:10/73																				20							27												39						45		47											58		60											71						77									86	87		89		91									
B-	B*46:11																				20														34				38	39	40					45		47											58									67				71			74			77			80																			
B-	B*46:12																				20							27												39	40					45		47											58		60											71						77	78									87		89											
B-	B*46:13:01~13:03																				20																		38	39	40					45		47											58									67				71						77			80						86	87				91									
B-	B*46:14											11									20							27												39	40					45		47											58		60											71						77									86	87		89		91									
B-	B*46:17																	17			20							27												39	40					45		47								55			58							65						71						77									86	87		89		91									
B-	B*46:18																				20														34				38	39	40							47									56		58													71			74			77			80																			
B-	B*46:19							7													20																		38	39	40					45		47											58									67				71						77									86	87				91									
B-	B*46:21:01~21:02																				20																		38	39	40							47									56		58													71						77			80						86	87				91									

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Name ______________________

Sample ID ______________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																										
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																									
B-	B*46:25																				20																		38	39	40							47											58													71		73				77			80						86	87				91									
B-	B*46:29																				20							27												39	40							47									56		58		60											71						77									86	87		89		91									
B-	B*46:30																				20							27												39	40							47											58		60											71		73				77									86	87		89		91									
B-	B*46:32:01~32:02																				20							27												39	40					45		47											58		60											71			74			77										87		89											
B-	B*46:33																				20																		38	39	40					45		47											58									67				71						77			80							87			90										
B-	B*46:40:01																				20							27												39						45		47													60											71						77									86	87		89		91			94						
B-	B*46:40:02																				20							27												39	40					45		47													60											71						77									86	87		89		91			94						
B-	B*46:43																				20																		38	39	40			43		45		47											58									67				71						77			80						86	87				91									
B-	B*46:44																				20							27												39	40					45													58		60											71						77									86	87		89		91									
B-	B*46:45																				20							27												39	40					45		47											58		60			63								71						77									86	87		89		91									
B-	B*46:59																				20																			39	40					45		47											58													71						77									86	87		89		91									
B-	B*46:61																				20							27												39	40					45		47											58		60	61										71						77									86		88	89		91									
B-	B*46:62																				20																			39	40					45	46	47											58													71						77									86	87		89		91									
B-	B*46:64/70																				20							27												39	40					45		47											58		60											71						77									86			89		91									
B-	B*46:66/75																											27												39	40					45		47											58		60											71						77									86	87		89		91									
B-	B*46:67																				20							27												39	40					45		47											58		60											71						77										87		89		91									
B-	B*46:72																				20							27												39	40					45		47											58		60											71						77									86	87		89		91									100
B-	B*46:74																				20							27												39	40					45		47					52						58		60											71						77									86			89		91									
B-	B*46:81																				20							27												39	40	41				45		47											58		60											71						77									86			89		91									
B47, B-	B*47:01:01:02~01:05/07			3																						25													38	39								47						53													66					71		73							80				84		86													99	
B47	B*47:02																				20					25			28										38	39								47						53													66					71		73							80				84	85	86														100
B47	B*47:03																									25			28										38	39								47						53													66					71		73							80				84	85	86														100
B-	B*47:04																									25													38	39			42					47						53													66					71	72	73							80																				
B-	B*47:05			3																						25													38	39								47						53													66					71		73							80																		99	
B-	B*47:06/09			3																						25														39								47						53													66					71		73							80				84		86													99	
B-	B*47:08			3																						25													38	39								47						53			56										66					71									80				84		86													99	
B-	B*47:10			3																						25														39								47						53													66					71		73							80				84		86			89										99	
B48, B-	B*48:01:01:01~01:07/09/11/27~29/32/34~35/38/42~43/45/47/49~50	1													14						20				24				28					33				37	38	39				43									52														66							73					78		80					85										95					100
B48	B*48:01:08	1													14						20				24				28					33				37	38	39				43					48		50		52														66							73					78		80					85										95					100
B48	B*48:01:09	1													14						20				24				28					33				37	38					43									52														66							73					78		80					85										95					100
B48	B*48:01:10	1													14						20				24				28					33					38	39				43									52														66							73					78		80					85										95					100
B48	B*48:02:01	1																			20				24				28					33				37	38	39						45																					66	67				71									80					85		87			90										100
B48	B*48:02:02	1																			20				24				28					33					38	39						45																					66	67				71									80					85		87			90										100
B48	B*48:02:03	1					6														20				24				28					33				37	38	39						45																					66	67				71									80					85		87			90										100
B48, B-	B*48:03:01:01~03:01:03/40	1																			20				24				28					33				37	38	39				43									52														66							73							80					85	86					91				95					100
B48	B*48:03:02	1																			20				24				28					33				37	38	39				43									52														66							73							80					85	86									95					100
B48	B*48:04:01:01~04:02	1													14						20				24				28					33				37	38	39				43									52														66					71		73					78		80					85															100
B48	B*48:05	1					6								14						20				24				28					33						39							46						52														66							73					78							85				89						95					100
B-	B*48:06	1							8		10				14					19	20				24													37	38	39				43									52																					73					78		80					85										95					
B48	B*48:07	1																			20				24				28					33				37	38	39				43																		61					66							73					78		80					85			88							95					100
B-	B*48:08	1																			20				24				28					33				37		39		41					46																				66							73					78							85				89						95					100
B48, B-	B*48:10/12	1													14						20				24				28					33				37	38	39													52														66							73					78		80					85										95					100
B-	B*48:13	1													14						20				24				28					33				37	38	39													52														66					71		73					78		80					85															100
B-	B*48:14	1																			20				24				28					33				37	38	39																											66							73					78		80					85										95					100
B-	B*48:15	1													14						20				24				28					33				37		39				43									52														66							73					78		80					85				89						95					100
B-	B*48:16/39	1													14						20				24				28									37	38	39				43									52																					73					78		80					85										95					
B48/40V	B*48:17	1																			20				24				28					33				37	38	39				43																							66							73							80					85			88		90					95					100
B-	B*48:18	1													14										24									33				37	38	39				43									52		54												66						72	73					78		80					85										95					100
B-	B*48:19	1													14						20				24				28					33				37	38	39				43									52								60			63			66							73					78							85										95					100
B-	B*48:20	1													14						20								28					33				37	38	39				43									52														66							73					78		80					85										95					100
B-	B*48:21	1																			20				24				28					33				37	38	39				43									52														66							73							80					85										95					100
B-	B*48:22											11			14						20				24				28					33				37	38	39				43				47					52														66							73					78		80					85										95					100
B-	B*48:23	1																			20				24				28					33				37	38	39				43																							66							73							80					85	86	87				91				95					100
B-	B*48:24	1													14						20				24				28					33				37	38	39				43									52														66					71		73					78							85															100
B-	B*48:25	1																			20				24				28					33				37		39						45																					66					71									80					85		87		89	90										100
B-	B*48:26	1																			20				24				28					33				37	38	39				43										53													66							73							80					85										95					100
B-	B*48:30														14						20				24				28					33				37	38	39				43									52														66							73					78		80					85										95					100
B-	B*48:31	1													14					19	20				24									33				37	38	39				43									52																					73					78		80					85										95					100
B-	B*48:33	1													14						20				24				28									37	38	39				43									52														66							73					78		80					85										95					100
B-	B*48:36	1													14						20								28					33				37	38	39				43									52														66							73					78		80		82			85										95					100
B-	B*48:37	1													14						20				24				28					33				37	38	39				43									52				56										66												78		80					85										95					100
B-	B*48:41	1													14						20								28									37	38	39				43									52														66							73					78		80					85										95					100
B-	B*48:44	1													14			17			20				24				28					33				37	38	39													52														66							73					78		80					85										95					100
B-	B*48:46	1																			20				24				28					33				37	38	39		41		43																							66							73					78		80					85										95					100
B-	B*48:48	1													14						20				24				28					33				37	38	39				43									52														66							73					78		80															95					100
B49, B-, B"Blank"	B*49:01:01:01~01:01:11/01:03~01:04/01:06/01:09~01:16/05:02~06/12~13/16~17/18:02~19N/22~23/27~30/33/35~36/38~40/49/56/58/60N/62/64~66/68											11							18							25				29										39						45		47							54														66				70	71	72								80									89	90		92								
B49, B-	B*49:01:02/45											11							18							25				29										39						45		47							54														66				70	71	72								80										90										
B49, B-	B*49:01:05/01:07/44											11							18							25				29																45		47							54														66				70	71	72								80									89	90		92								
B49, B-	B*49:01:08/08											11							18							25				29										39								47							54														66				70	71	72								80									89	90		92								
B49	B*49:02						6					11														25				29										39			42			45		47																					66					71	72								80									89	90		92								

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Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																			
B-	B*49:03											11							18											29										39						45		47							54								62				66						71	72								80											89	90		92		94						
B-	B*49:04:01											11							18							25				29										39						45		47							54												66				70	71	72								80							87		89	90		92									
B-	B*49:04:02											11							18							25				29										39						45		47							54												66				70	71	72								80							87		89			92									
B49, B-	B*49:05:01/57											11							18							25				29										39						45		47							54												66				70	71	72								80									89			92									
B47	B*49:07											11							18							25				29										39								47							54												66				70	71	72	73							80									89	90		92									
B-	B*49:09											11							18							25				29																45		47							54												66				70	71	72								80	81								89	90		92									
B-	B*49:10																		18							25				29										39						45		47							54												66				70	71	72								80									89	90		92									
B-	B*49:11											11							18							25				29									38	39						45		47							54												66	67			70	71	72								80										90										
B-	B*49:14/46/51~52											11							18							25				29										39						45		47							54												66				70		72								80									89	90		92									
B-	B*49:18:01											11							18							25				29										39						45		47	48						54												66				70	71	72								80									89	90		92									
B-	B*49:20											11							18							25				29										39						45		47							54	55									65	66				70	71	72								80									89	90		92									
B-	B*49:21											11							18							25				29										39						45		47																66						71									80									89	90		92									
B-	B*49:24																		18							25				29										39						45		47							54										64		66				70	71	72								80									89	90		92									
B-	B*49:25																		18			21				25				29								37		39						45		47							54												66				70	71	72								80									89	90		92									
B-	B*49:26									9	10	11							18								24					29										39						45		47																				69		71	72							79	80									89	90		92									
B-	B*49:31		1																		18							25				29										39						45									54												66				70	71	72								80									89	90		92									
B-	B*49:32/34											11							18							25				29										39						45		47																					70	71	72								80									89	90		92									
B-	B*49:37											11							18							25				29										39						45		47							54												66				70	71	72																			89	90		92									
B-	B*49:41											11							18							25				29										39						45	46	47							54												66				70	71	72																			89	90										
B-	B*49:42/59											11							18											29										39						45		47							54												66				70	71	72								80									89	90		92									
B-	B*49:43											11							18							25																	39						45		47							54												66				70	71	72								80									89	90										
B-	B*49:47:01											11							18							25																	39						45		47							54												66				70	71	72								80						86			89	90										
B-	B*49:47:02											11							18							25																	39						45		47							54												66				70	71	72								80						86			89	90	91									
B-	B*49:48											11							18							25				29										39	40					45		47							54												66				70	71	72								80									89	90		92									
B-	B*49:50											11							18							25				29										39						45		47							54												66				70	71	72								80								88	89	90		92									
B-	B*49:53											11							18							25				29										39						45		47							54																		70	71	72								80									89	90		92									
B-	B*49:54											11							18							25																	39						45		47							54												66				70	71	72		74						80									89	90										
B-	B*49:55											11							18							25				29										39						45		47							54												66				70	71	72								80										90		92									
B-	B*49:61											11	12						18							25																	39						45		47							54												66				70	71	72								80									89		91									
B-	B*49:63								8		10	11							18							25	26			29										39						45		47																				69	70	71	72								80									89	90		92									
B-	B*49:67								8		10	11								19							25				29										39						45		47																				69	70	71									80									89	90		92									
B50, B-	B*50:01:01:01~01:01:06/01:04/01:06~01:13/01:15~01:16/10~11/16/18~19/33/35/37~42/44/46/48/50/53/57/59~60/62/65/67/69											11									20					25			28	29										39						45		47																	66						71									80					85				89	90		92								100
B50, B-	B*50:01:02/61											11									20					25			28	29										39						45		47																	66						71									80					85				89			92								100
B50, B-	B*50:01:03/32											11									20					25			28	29										39						45		47																	66						71														85				89	90										100
B50	B*50:01:05											11									20					25			28	29										39						45		47																	66						71									80									89	90		92									
B50	B*50:01:14											11									20					25			28											39						45		47																	66						71									80					85				89	90		92								100
B45, B-	B*50:02:01:01~02:01:02/56											11									20					25			28	29										39						45		47								55										65	66						71									80					85				89	90		92								100
B50	B*50:04											11									20					25			28											39						45		47																	66						71									80					85				89			92								100
B-	B*50:05~07											11									20								28	29										39						45		47																	66						71									80					85				89	90		92								100
B-	B*50:08											11									20					25			28	29																45		47																	66						71									80					85				89	90		92								100
B-	B*50:09											11									20					25			28	29										39						45		47																	66						71									80					85			88	89	90		92								100
B-	B*50:12/17											11									20					25			28											39						45		47																	66						71									80					85				89	90										100
B-	B*50:13																				20					25			28	29										39						45		47																	66						71									80					85				89	90		92								100
B-	B*50:14											11									20					25			28	29										39						45		47	48																66						71									80					85				89	90		92								100
B-	B*50:15								8		10	11									20					25	26		28	29										39						45		47																											71									80					85				89	90		92									
B-	B*50:20											11									20					25			28											39						45		47						53														66						71									80				84	85				89			92								100
B-	B*50:31											11									20					25			28	29										39								47																	66						71		73							80					85				89	90		92								100
B-	B*50:34/68																				20					25			28	29										39						45																					66						71									80					85				89	90		92								100
B-	B*50:36											11									20					25			28	29										39						45		47													59							66						71									80					85				89	90		92								100
B-	B*50:43		1																			20					25			28	29										39						45																					66						71									80					85				89	90		92								100
B-	B*50:45											11									20					25			28	29										39								47										56										66						71									80					85				89	90		92								100
B-	B*50:47											11									20					25		27	28	29										39						45		47														60						66						71														85				89	90										100
B-	B*50:49							7					11									20					25			28	29									38	39								47										56										66						71														85					90										100
B-	B*50:51											11									20					25			28											39						45		47																	66						71									80			83		85				89												100
B-	B*50:52											11									20					25			28	29										39						45		47																	66						71									80									89	90		92								100
B-	B*50:55/64											11									20					25			28	29										39								47																	66						71									80					85				89	90		92								100
B-	B*50:58											11									20					25			28	29																45		47																	66						71									80	81				85				89	90		92								100
B-	B*50:63											11									20					25				29										39						45		47																											71									80					85				89	90		92									
B-	B*50:66											11									20					25			28	29										39						45		47																	66						71									80					85					90										100
B-	B*50:70											11									20					25			28	29									38	39						45		47																	66	67					71									80					85					90										100

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LABType™ SSO Class I B Locus Typing Test, Lot #020

Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																							
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																							
B51, B5103, B-, B"Blank"	B*51:01:01:01~01:01:64/01:03/01:05/01:07/01:10/01:12/01:14/01:16/01:18~01:19/01:21~01:23/01:25~01:29/01:35~01:37/01:42/01:44~01:45/01:49/01:52~01:58/01:60~01:61/01:63~01:65/01:67/01:69~01:71/01:73~01:74/01:76~01:81/01:83~01:84/03/11N/18/24:03~24:05/27N/30/32~33/48~49/51/60/65/69/71/75~77/80/84/86/94/96/98N/100/105/107/109~111/117/123~127/129~130/134/136~138/142/145/154~156/158:01~159/161~169/171/173Q~174:02/177/183~184N/187/193/195~196/198/200/203/205~207/209~210/215/219/221/224/229~230:01:03/232~235N/237/239~241/243/248~250/252~253/255~256N/260/262/264N/268~271/273N/277~278/282~283/285~286/288~289/294/296~297/301/303~305/307~309/311~316/320~321								8		10								18	19																										45		47	48				52										62							69		71	72		74						80	81								89					94						
B51, B-	B*51:01:02:01~01:02:02/01:09/132								8		10								18	19																					40					45		47	48				52																	69		71	72		74						80	81								89					94						
B51, B-	B*51:01:04/01:13/01:72/24:01~24:02/35/38/99/131								8		10								18	19																										45		47					52										62							69		71	72		74						80	81								89					94						
B51, B-	B*51:01:06/121/128/189/236/272								8		10								18																											45		47	48				52										62							69		71	72		74						80	81								89					94						
B51, B-	B*51:01:08/01:43/50								8		10									19																										45		47	48				52										62									71			74						80	81								89					94						
B51, B-, B"Blank"	B*51:01:11/01:17/160/245N																		18																											45		47	48				52										62									71	72		74						80	81								89					94						
B51, B-	B*51:01:15/01:31/01:48/01:50/14/17/63:01/133/182/192/216/223/254/298								8		10								18	19																										45		47	48														62							69		71	72		74						80	81								89					94						
B51, B-	B*51:01:20/01:30/01:32/01:39/01:59/88/95/204:01~204:02								8		10								18	19																												47	48				52										62							69		71	72		74						80	81								89					94						
B51, B-	B*51:01:24/246/317								8		10								18	19																										45			48				52										62							69		71	72		74						80	81								89					94						
B51, B-	B*51:01:33/01:41/01:46/01:62/26/58/67/83/113/147/150/266/284								8		10								18	19																										45		47	48				52										62							69		71	72		74						80	81								89											
B51, B-, B"Blank"	B*51:01:34/01:38/01:68/28/79/102/178N/191/257/265/290										10								18	19																										45		47	48				52										62							69		71	72		74						80	81								89					94						
B51, B-	B*51:01:40/247								8		10									19																										45		47	48				52										62									71	72		74						80	81								89					94						
B51, B-	B*51:01:47/55								8		10								18	19																										45		47	48				52										62							69		71	72		74							81								89					94						
B51, B-, B"Blank"	B*51:01:51/43/66/89/119/226/244/306N								8		10								18	19																										45		47	48				52																	69		71	72		74						80	81								89					94						
B51, B"Blank", B-	B*51:01:66/01:75/149N/188/299								8		10								18	19																										45		47	48				52										62							69			72		74						80	81								89					94						
B51, B-	B*51:01:82/70/175/212/238/242/292								8		10								18	19																										45		47	48				52										62							69		71	72		74						80										89					94						
B5102	B*51:02:01:01~02:01:02/02:05~02:06								8		10								18	19																				39						45		47	48				52										62							69		71	72		74						80										89					94						
B5102	B*51:02:02								8		10								18	19																				39	40					45		47	48				52																	69		71	72		74						80										89					94						
B5102, B-	B*51:02:03/146								8		10								18	19																				39						45		47	48														62							69		71	72		74						80										89					94						
B5102, B-	B*51:02:04/199								8		10								18	19																				39						45		47					52										62							69		71	72		74						80										89					94						
B51, B-	B*51:04:01/46/56:03/114/152/190/213								8		10								18	19																										45		47	48				52										62							69		71	72								80	81								89					94						
B51, B-	B*51:04:02/56:01								8		10								18	19																										45		47	48				52										62							69		71	72								80	81								89		91			94						
B51	B*51:05								8		10								18	19																			38	39	40					45	46	47	48		50		52															67		69		71	72		74																					94						
B51, B-	B*51:06:01/293								8		10								18	19																										45		47	48				52										62							69		71	72								80	81					86			89		91			94						
B51	B*51:06:02								8		10								18	19																										45		47	48				52										62							69		71	72								80	81					86			89					94						
B51, B-	B*51:06:03/319								8		10								18	19																										45		47	48														62							69		71	72								80	81					86			89		91			94						
B51	B*51:06:04								8		10								18	19																					40					45		47	48				52																	69		71	72								80	81					86			89		91			94						
B51, B-	B*51:07:01/222								8		10								18								26																			45		47	48				52										62							69		71	72		74						80	81								89					94						
B51	B*51:07:02								8		10								18								26														40					45		47	48				52																	69		71	72		74						80	81								89					94						
B51, B-	B*51:08:01:01~08:04/141/263/275								8		10								18	19																			38							45		47	48		50	51	52										62					67		69		71	72		74							81													94						
B51, B-	B*51:09:01/09:03/73/122/259								8		10								18	19																			38							45		47	48		50		52										62					67		69		71	72		74						80	81													94						
B51	B*51:09:02								8		10								18	19																			38		40					45		47	48		50		52															67		69		71	72		74						80	81													94						
B-	B*51:10								8		10								18	19																			38	39								47					52										62							69		71	72	73	74						80															94						
B-	B*51:101							7	8		10								18	19																												47	48				52				56						62	63						69		71	72		74							81								89					94						
B-	B*51:103								8		10								18	19																										45			48				52																	69		71	72		74						80	81								89					94						
B-	B*51:104								8		10						16		18	19																										45		47	48				52					57	58				62							69		71	72		74						80	81								89											
B-	B*51:106:01								8		10								18	19															34											45		47	48														62							69		71	72		74						80	81								89					94						
B-	B*51:106:02/225								8		10								18	19															34											45		47															62							69		71	72		74						80	81								89					94						
B-	B*51:108								8		10								18	19																			38	39						45		47	48		50		52			55							62					67		69		71	72		74						80															94						
B-	B*51:112								8		10								18	19																										45		47	48				52										62							69	70	71	72		74						80	81								89											
B-	B*51:116								8		10								18	19																		37								45			48				52																	69		71	72		74						80	81								89					94						

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LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																								
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																							
B"Blank", B-	B*51:118N/231																		18	19																										45		47	48				52										62									71	72		74						80	81								89					94						
B-	B*51:12/202/291								8		10								18	19																										45		47	48				52										62							69		71			74						80	81								89					94						
B-	B*51:13:01								8		10								18	19																										45		47														61	62							69		71	72		74						80	81							88	89					94						
B-	B*51:13:02								8		10								18	19																										45		47	48													61	62							69		71	72		74						80	81							88	89					94						
B-	B*51:135								8		10								18	19																							41				45		47	48														62							69		71	72								80	81					86			89		91			94						
B-	B*51:139								8		10								18	19																				38							45		47	48		50		52										62					67		69		71	72								80	81													94						
B-	B*51:140								8		10								18	19																										45		47	48				52										62		64					69		71	72		74						80	81								89					94						
B-	B*51:143								8		10								18	19																					39								47	48				52				56						62	63						69		71	72		74						80									89					94						
B-	B*51:144/180								8		10								18	19																					39	40							47	48				52																	69		71	72		74						80									89					94						
B-	B*51:148								8		10				14				18	19																				38	39	40					45		47					52															67		69		71	72						78		80														94						
B-	B*51:15								8		10								18	19															34				38	39	40					45		47																				67		69		71	72		74						80														94						
B-	B*51:151								8		10	11							18	19																										45		47	48				52										62							69		71	72		74						80	81								89					94						
B-	B*51:153								8		10								18	19																				38									47	48		50	51	52				56						62	63						69		71	72		74							81												93	94						
B-	B*51:157								8		10								18	19															34				38	39								47									56						62							69		71	72		74						80														94						
B5	B*51:16								8		10								18	19																												47	48				52										62							69		71	72	73	74						80	81								89					94			97			
B-	B*51:170								8										18	19																										45		47	48				52										62							69		71	72		74						80	81								89					94						
B-	B*51:176								8		10								18	19		21																37								45		47	48				52																	69		71	72		74						80	81								89					94						
B-	B*51:179								8		10								18	19																		37								45		47	48				52																	69		71	72		74						80	81								89					94						
B-	B*51:185								8		10									19																										45		47	48				52																	69		71	72		74						80	81				85				89					94						
B-	B*51:186								8		10								18	19																												47															62							69			72																							94						
B-	B*51:19/276							7	8		10								18	19																			38							45		47	48		50		52										62					67		69		71	72		74							81													94						
B-	B*51:194								8		10								18	19																			38							45		47	48		50		52										62					67		69		71	72								80	81					86					91			94						
B-	B*51:197								8		10								18	19																				39							46	47									56						62							69		71	72		74															89					94						
B-	B*51:20								8		10								18	19																			38							45		47	48		50	51	52															67		69		71			74							81													94						
B-	B*51:21								8		10								18	19																												47	48				52				56						62	63						69		71	72		74						80	81								89					94						
B-	B*51:211								8		10								18	19																										45		47	48				52										62							69		71	72		74							81													94						
B-	B*51:214/251								8		10								18								26																			45		47	48														62							69		71	72		74						80	81								89					94						
B-	B*51:217								8		10								18	19																			38							45	46	47	48		50		52										62					67		69		71	72		74							81													94						
B-	B*51:218	1							8		10								18	19																		37								45			48				52																	69		71	72		74						80	81								89					94						
B-	B*51:22								8	9	10								18																											45		47	48				52										62							69		71	72		74					79	80	81								89					94						
B-	B*51:220								8		10								18	19								27												39						45		47													60		62							69		71	72														86	87		89		91			94						
B-	B*51:227/281								8		10								18	19																										45		47	48														62							69		71	72								80	81								89		91			94						
B-	B*51:23								8		10								18	19																				39						45		47	48				52			55							62			65				69		71	72		74						80									89					94						
B-	B*51:261								8		10		12						18	19																										45		47	48														62							69		71	72		74						80	81								89					94						
B-	B*51:267						6		8		10								18	19					24																					45		47	48				52										62							69		71	72		74						80	81								89											
B-	B*51:274								8		10		12						18	19																			38							45		47	48		50	51											62					67		69		71	72		74							81													94						
B-	B*51:280								8		10								18	19																			38									47	48		50		52				56						62	63						69		71	72		74						80	81													94						
B-, B51	B*51:29/279								8		10								18	19																										45	46	47	48				52										62							69		71	72		74							81								89					94						
B-	B*51:295								8		10								18	19																				39								47					52				56						62							69		71	72		74						80									89					94						
B-	B*51:300								8		10								18	19															34					39								47									56						62							69		71	72		74						80									89					94						
B51	B*51:31								8		10								18	19																			38									47	48		50		52										62							69		71	72	73	74						80	81													94			97			
B-	B*51:310																		18																											45		47	48				52		54								62				66					71	72								80	81								89					94						
B-	B*51:34								8		10								18	19																				39								47	48				52										62							69		71	72	73	74						80									89					94						
B-	B*51:36								8		10								18	19																				39								47	48			51	52				56						62	63						69		71	72		74															89				93	94						
B-	B*51:37								8		10								18	19																										45		47	48														62							69		71	72		74						80	81						87		89					94						
B-	B*51:39								8		10								18	19																										45		47	48				52										62							69		71	72		74						80	81	82							89					94						
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B-, B"Blank"	B*51:41N/52/201/208/258/302/318N								8		10								18	19																										45		47	48				52																	69		71			74						80	81								89					94						
B-	B*51:42								8		10		12						18	19																			38	39						45		47								55							62					67		69		71	72								80											91			94						
B"Blank"	B*51:44N																		18																				38							45		47	48		50	51	52										62					67				71	72		74							81													94						
B-	B*51:45								8		10								18	19																										45		47															62							69		71	72								80	81					86	87		89		91			94						
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B-	B*51:56:02								8		10								18	19																										45		47	48				52										62							69		71	72								80	81								89	90				94						
B-	B*51:57	1							8		10								18	19																										45			48				52										62							69		71	72		74						80	81								89					94						
B-	B*51:59								8		10								18	19																				39						45		47	48				52										62							69		71	72								80						86			89		91			94						
B-	B*51:61:01~61:02								8		10								18	19								27																		45		47	48				52								60		62							69		71	72		74							81								89					94						
B-	B*51:62								8		10								18	19															34											45		47															62							69		71	72								80	81					86			89		91			94						
B-	B*51:63:02								8		10								18	19																										45		47															62							69		71	72		74						80	81								89					94						
B-	B*51:64								8		10				14				18	19																										45		47	48				52										62							69		71	72						78		80	81								89					94						
B-	B*51:68								8		10								18	19		21																								45		47	48				52										62							69		71	72		74						80	81								89					94						
B-	B*51:74								8		10								18	19																										45		47	48	49			52										62							69		71	72		74						80	81								89					94						
B-	B*51:78:01								8		10									19																							42			45		47	48				52										62									71	72		74						80	81								89					94						
B-	B*51:78:02								8		10									19																					40		42			45		47	48				52																			71	72		74						80	81								89					94						
B-	B*51:81								8		10				14				18	19																			38	39								47					52										62							69		71	72	73					78		80														94						
B-	B*51:82								8		10								18	19																											46	47	48				52										62							69		71	72	73	74							81								89					94			97			
B-	B*51:85								8		10								18	19																										45		47	48					53									62							69		71	72		74						80	81								89					94						
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B-	B*51:92:01								8		10								18	19																										45		47															62							69		71	72		74						80	81							88	89					94						
B-	B*51:92:02/172								8		10								18	19																										45		47	48														62							69		71	72		74						80	81							88	89					94						
B-	B*51:93								8		10								18	19																			38	39	40							47	48		50		52																	69		71	72	73	74						80														94						
B-	B*51:97								8		10								18	19																			38							45		47	48		50	51											62					67		69		71	72		74							81													94						

WORKSHEET

LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																				
B52, B-, B"Blank"	B*52:01:01:01~01:01:16/01:06~01:08/01:10~01:14/01:17/01:20/01:22~01:25/01:27/01:30~01:32/01:36~01:39/01:41~01:42/01:44/01:48/04/07/13/23/30~31:01/34~36/40~43/47/53~54/57/59~60/65~66/78~81/86~87/89N~91/93~96N/98~100																	18																						40					45		47	48				52		54												66						71	72		74						80	81								89					94						
B52, B-	B*52:01:02:01~01:02:05/01:09/01:40/01:43/01:47/31:02/85																	18																														45		47	48				52		54								62				66						71	72		74						80	81								89					94						
B52, B-	B*52:01:03/01:16/01:34/01:46/32/82																	18																						40					45		47	48				52		54												66						71	72		74						80	81								89												
B52	B*52:01:04																																																		45		47	48				52		54												66						71	72		74						80	81								89					94						
B52, B-	B*52:01:05/01:15/52/58/64																	18																						40					45		47					52		54												66						71	72		74						80	81								89					94						
B52, B-	B*52:01:18~01:19/22																	18																						40					45		47	48				52		54												66						71			74						80	81								89					94						
B52, B-	B*52:01:21/33/38																	18																						40							47	48				52		54												66						71	72		74						80	81								89					94						
B52, B-	B*52:01:26/01:45/61																	18																						40					45		47	48				52		54												66						71	72		74							81								89					94						
B52, B-	B*52:01:28~01:29/68																																									40					45		47	48				52																66						71	72		74						80	81								89					94						
B52, B-	B*52:01:33/28~29																	18																						40					45		47	48				52		54												66						71	72		74						80	81													94						
B52, B-	B*52:01:35/05/17/76/83																	18																														45		47	48				52		54												66						71	72		74						80	81								89					94						
B-	B*52:02:01																16		18																														45		47	48				52		54				58				62				66						71	72		74						80	81								89												
B-	B*52:02:02																16		18																						40					45		47	48				52		54				58								66						71	72		74						80	81								89												
B-	B*52:03																	18																					38	39						45		47	48		50		52		54								62				66	67				71	72		74						80															94						
B52	B*52:06:01																	18	19																														45		47	48				52		54								62										71	72		74						80	81								89												
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B52	B*52:06:03																	18	19																						40					45		47	48				52		54																				71	72		74						80	81								89					94						
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B-	B*52:10:01~10:02/74																	18																					38		40					45		47	48		50		52		54												66	67				71	72		74						80	81													94						
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B52	B*52:12																	18																						40	41				45		47	48						54												66						71	72		74						80	81								89					94						
B-	B*52:14:01																	18																						40					45		47								54						61					66						71	72		74						80	81							88	89					94						
B-	B*52:14:02																	18																						40					45		47	48						54						61					66						71	72		74						80	81							88	89					94						
B-	B*52:15																	18																						40					45		47	48				52		54	55										65	66						71	72		74						80	81								89					94						
B-	B*52:16																	18						24									33				37							45		47	48				52		54												66						71	72		74						80	81								89												
B-	B*52:18																	18																						40					45		47	48				52																66						71	72		74						80	81								89					94						
B-	B*52:19																	18																					38		40					45		47	48		50	51	52		54												66	67				71	72		74							81													94						
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B-	B*52:21:02																	18										27													40					45		47	48				52		54						60						66						71	72		74							81								89					94						
B-	B*52:24																	18																						40					45	46	47	48				52		54												66						71	72		74							81								89					94						
B-	B*52:25:01																	18																	34						40					45		47							54												66						71	72		74						80	81								89					94						
B-	B*52:25:02																	18																	34						40					45		47	48						54												66						71	72		74						80	81								89					94						
B-	B*52:26												12						18																						40					45		47	48						54												66						71	72		74						80	81								89					94						
B-	B*52:27																	18																				37								45		47	48				52		54												66						71	72		74						80	81								89					94						
B-	B*52:37																	18																						40							47	48				52		54		56								63			66						71	72		74						80	81								89					94						
B-	B*52:39/62~63																	18																						40					45		47	48						54												66						71	72		74						80	81								89					94						
B-	B*52:44/69																	18																						40					45		47	48				52		54												66						71	72		74							81													94						
B-, B"Blank"	B*52:45/49N/92																	18																						40					45		47	48				52		54												66							72		74						80	81								89					94						
B-	B*52:46/50/56/72																	18																						40					45			48				52		54												66						71	72		74						80	81								89					94						
B-	B*52:48/55																	18																						40					45		47	48				52		54												66						71	72		74						80									89					94						
B-	B*52:51											11							18																						40					45		47	48				52		54												66						71	72		74						80	81								89					94						
B-	B*52:67																	18																						39	40							47	48				52		54												66						71	72	73	74						80									89					94						
B-	B*52:70																	18																						40					45		47	48				52		54																				71	72		74						80	81								89					94						
B-	B*52:71							7										18																					38		40							47	48		50		52		54		56								63			66						71	72		74							81													94						
B-	B*52:73																	18																						40					45		47	48				52																										71	72		74						80	81								89					94						
B-	B*52:75																	18																						40					45		47	48						54												66						71	72		74						80	81							88	89					94						
B-	B*52:77																	18			21																37								45		47	48				52		54												66						71	72		74						80	81								89					94						
B-	B*52:84							7										18																						40							47	48				52		54		56								63			66						71	72		74							81								89					94						
B-	B*52:88																	18																						40					45		47	48						54												66						71	72								80	81								89		91			94						
B-	B*52:97																	18										27																			45		47							54						60		62				66						71	72		74							81								89					94						
B53, B-	B*53:01:01:01~01:01:10/01:03~01:04/01:06~01:12/01:14~01:17/01:21~01:25/10/18/20/25~26/29/32/34/37/46/49/51~52/54/59~60								8		10								18	19																				38	39	40					45		47																			67		69		71	72								80							87			90				94						
B53, B-	B*53:01:02/39/61								8		10								18	19																				38	39	40					45		47																			67		69		71	72								80							87			90										
B53	B*53:01:05								8		10								18	19																				38		40					45		47																			67		69		71	72								80							87			90				94						
B53	B*53:01:13								8		10								18	19																				38	39						45		47															62					67		69		71	72								80							87			90				94						
B53	B*53:01:18								8		10									19																				38	39	40					45		47																			67				71	72								80							87			90				94						
B53, B-	B*53:01:19/45/58										10								18	19																				38	39	40					45		47																			67		69		71	72								80							87			90				94						
B53, B-	B*53:01:20/53								8		10								18	19																				38	39	40					45		47																			67		69		71	72								80							87							94						
B-	B*53:02								8		10								18	19																				38		40					45		47																			67		69		71	72								80	81						87			90				94						
B-	B*53:03				3					8		10									19																				38	39	40					45		47																			67				71									80							87			90				94					99	
B-	B*53:04								8		10								18	19																				38	39	40					45		47																			67		69		71	72								80								88		90				94						

WORKSHEET

LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																								
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																										
B-	B*53:05:01								8		10									19																			38	39	40					45		47																				67		69		71	72								80					85		87			90				94						
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B53	B*53:07								8		10								18	19											30								38	39	40					45		47																				67		69		71	72								80								88						94						
B-	B*53:08:01~08:02								8		10								18	19																				39	40					45		47																						69		71	72								80							87		89	90				94						
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B-	B*53:12								8		10									19																			38	39	40		42			45		47																				67				71	72								80					85		87			90				94		96				
B-	B*53:13								8		10									19																			38	39	40		42			45		47																				67				71	72								80							87			90				94						
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B53	B*53:17:02																		18																				38	39	40					45		47							54												66	67				71	72								80							87			90				94						
B-	B*53:19								8		10								18	19																			38	39	40					45		47					52							59								67		69		71	72								80										90				94						
B-	B*53:21	1							8		10								18	19																			38	39	40					45																						67		69		71	72								80							87			90				94						
B-	B*53:22								8		10								18	19																			38	39	40					45		47				51				55												67		69		71	72															87			90				94						
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B-	B*53:24								8		10								18	19																			38	39	40					45	46	47																				67		69		71	72															87			90				94						
B-	B*53:27/57								8		10								18	19																			38	39	40					45																						67		69		71	72								80							87			90				94						
B-	B*53:28																		18																						40					45		47	48						54												66					71	72								80	81						87		89	90				94						
B-	B*53:30								8		10								18	19						25													38	39	40					45		47																				67		69	70	71	72								80							87			90										
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B-	B*53:36								8		10									19																			38	39	40		42			45		47					52							59								67				71	72								80										90				94						
B-	B*53:38																																						38	39	40		42			45		47																			66	67				71	72								80							87			90				94						
B-	B*53:40								8		10								18								26												38	39	40					45		47																				67		69		71	72								80							87			90				94						
B-	B*53:41								8		10								18	19																					40							47																						69			72																						94						
B-	B*53:42								8		10								18	19																			38	39	40	41				45		47																				67		69		71	72								80										90				94						
B-	B*53:43:01~43:02								8		10								18	19																		37	38	39						45		47																				67		69		71	72								80							87			90				94						
B-	B*53:44								8		10								18	19																			38	39	40					45		47												59								67		69		71	72								80						86	87				91			94						
B-	B*53:47								8		10								18	19																			38	39	40					45		47																				67		69		71	72								80						86	87			90				94						
B"Blank", B-	B*53:48N/50								8		10								18	19																			38	39	40					45		47																				67		69		71	72								80										90				94						
B-	B*53:55			3					8		10									19																			38	39	40					45	46	47																				67				71																87			90				94					99	
B-	B*53:56								8		10								18	19																			38	39	40							47																						69		71	72	73							80							87			90				94						
B-	B*53:62								8		10		12						18	19																			38	39	40					45		47								55												67		69		71	72								80											91			94						
B54, B-	B*54:01:01:01~01:06/01:08~01:09/07/17~18/23~25/27/29/31~32/34/36/41								8		10										20		22												34				38	39	40							47									56															71			74						80		82																		
B54	B*54:01:07								8		10										20														34				38	39	40							47									56															71			74						80		82																		
B54, B-	B*54:02/19/39								8		10										20		22												34				38	39	40																56															71			74						80		82																		
B-	B*54:03								8		10										20		22												34				38	39	40					45		47																				67				71			74						80		82																		
B-	B*54:04								8		10										20		22																38	39	40							47					52				56															71			74						80		82																		
B"Blank"	B*54:05N								8		10										20		22												34				38	39	40							47									56															71			74						80																96				
B-	B*54:06								8		10										20		22					27												39	40					45		47													60											71											82				86	87		89		91									
B"Blank"	B*54:08N								8		10										20		22												34				38	39	40							47																								71			74						80		82																		
B-	B*54:09								8		10										20		22																38	39	40							47									56															71									80		82				86	87				91									
B-	B*54:10								8		10										20		22												34				38	39	40						46	47									56															71			74								82																		
B54	B*54:11								8		10							17			20		22																38	39	40							47					52				56															71			74						80		82																		
B-	B*54:12								8		10								18				22												34				38	39	40							47									56													69		71			74						80		82																		
B-	B*54:13								8		10										20		22												34				38	39								47									56															71			74						80		82																		
B-	B*54:14								8		10										20		22																38	39	40							47									56															71			74						80		82					87													
B-	B*54:15								8		10										20		22																38	39	40							47									56															71			74						80		82								90										
B-	B*54:16								8		10										20		22																38	39	40							47									56															71			74						80		82																		
B-	B*54:20								8		10										20		22												34					39	40						46	47									56															71			74								82							89											
B-	B*54:21								8		10										20		22												34			37	38	39								47									56															71			74						80		82																		
B-	B*54:22								8		10							17			20		22												34				38	39	40							47									56															71			74						80		82																		
B-	B*54:26								8		10										20		22												34				38	39	40							47																								71		73	74						80		82																		
B-	B*54:28								8		10										20		22												34				38		40							47									56															71			74						80		82																		
B-	B*54:30								8		10										20		22												34				38	39	40							47									56															71			74						80		82			85															
B-	B*54:33								8		10										20		22					27							34					39	40					45		47													60											71			74								82							89											
B-	B*54:35																				20		22												34				38	39	40							47									56															71			74						80		82																		100
B-	B*54:37~38								8		10										20		22												34				38	39	40							47									56															71									80		82																		
B-	B*54:40								8		10										20		22												34				38	39	40					45		47													60							67				71			74								82																		
B55, B-, B"Blank"	B*55:01:01:01~01:01:16/01:01:18~01:03/01:06/01:08/01:10/01:12/01:15~01:16/01:18~01:20/01:22~01:24/01:26/03/15/25/29/33/38/44~45/53/55N/59~60/74~76/84~85/87/91~92/94~95/97N~98/101~102/105/108~109								8		10										20			23	24										34					39	40				44			47									56															71			74	75					80									89											
B55	B*55:01:01:17																																		34					39																	56															71			74						80									89											
B55	B*55:01:04								8		10										20			23	24										34					39	40				44			47	48								56							63								71			74	75					80									89											
B55	B*55:01:05								8		10										20			23	24										34					39	40				44			47									56																		74	75					80									89											
B55, B-	B*55:01:07/11								8		10										20			23	24										34					39	40				44			47									56															71				75					80									89											

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LABType™ SSO Class I B Locus Typing Test, Lot #020

Name

Sample ID

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																				
B55, B-	B*55:01:09/01:14/66								8		10										20			23	24										34					39	40				44													56															71			74	75					80									89											
B55, B-	B*55:01:11/36								8		10										20			23	24										34					39						44			47									56															71			74	75					80									89											
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B55	B*55:01:21								8		10										20			23	24										34					39	40				44			47									56															71			74	75															89											
B55, B-	B*55:01:25/79/93/104								8		10										20															34					39	40							47									56															71			74	75					80									89											
B55, B-, B22, B"Blank"	B*55:02:01:01~02:02/02:04~02:10/02:12~02:13/02:15/12/19/39/42~43/48/50/61~62/65/67/69/71~72/80/83N/107								8		10										20			23	24										34				38	39	40				44			47									56															71			74	75					80																				
B55, B-	B*55:02:03/63								8		10										20			23	24										34				38		40				44			47									56															71			74	75					80																				
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B55	B*55:02:14								8		10										20			23	24										34				38	39	40				44													56															71			74	75					80																				
B55, B-	B*55:04/49/86								8		10				14						20			23	24																38	39	40				44			47					52				56															71				75			78		80																				
B22	B*55:05										10										20			23	24										34					39	40				44			47									56															71			74	75					80									89											
B54	B*55:07								8		10										20		22													34				38	39	40							47									56															71			74	75					80																				
B56	B*55:08								8		10										20			23	24																38	39	40				44	45		47					52														67				71				75					80						86						91									
B22	B*55:09								8		10										20			23	24										34					39	40				44		46	47																													71		73	74	75													89											
B55	B*55:10		1							8		10										20			23	24										34			37	38	39					44													56															71			74	75					80																				
B-	B*55:100								8		10										20			23	24																			40				44			47																															75																								
B-	B*55:103								8		10								18					23	24										34					39	40				44			47									56												69		71			74	75					80									89											
B-	B*55:106								8		10										20			23	24										34						40				44			47									56															71			74	75					80									89											
B-	B*55:13								8		10										20			23	24																38	39	40				44			47									56						61										71			74	75					80								88													
B-	B*55:14								8		10										20			23	24																	39	40				44			47			50						56															71				75	76				80							87		89											
B22	B*55:16								8		10	11									20			23	24										34				38	39	40				44			47									56															71			74	75					80																				
B-	B*55:17/28:01								8		10										20			23	24																	39	40				44			47					52				56															71			74	75					80									89											
B-	B*55:18						6															20				24				28						33	34				38	39	40				44			47									56									66						71			74						80						85																	100
B-	B*55:20								8		10										20			23	24														36		38	39	40				44			47				51	52				56																		74	75																					93							
B-	B*55:21								8		10										20			23	24			27								34					39	40				44			47									56				60											71			74	75														89											
B55	B*55:22								8		10										20			23	24										34				38	39	40				44			47																									71		73	74	75					80																				
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B-	B*55:24								8		10										20			23	24										34					39	40				44			47																									71		73	74	75					80									89											
B-	B*55:26/77								8		10										20			23	24										34				38	39	40							47									56															71			74	75					80																				
B-	B*55:27								8		10										20			23	24																38	39	40	41			44			47									56															71			74	75					80										90										
B-	B*55:28:02								8		10										20			23	24																	39	40				44			47	48				52				56							63									71			74	75					80									89											
B-	B*55:30								8		10										20			23	24										34				38	39					44			47									56															71			74	75					80																				
B-	B*55:31								8		10										20			23	24										34					39	40				44			47									56															71			74	75					80					85				89											
B-	B*55:32/41/46								8		10										20			23	24																38	39	40				44			47									56															71			74	75					80																				
B-	B*55:34																					20			23	24									33	34				38	39	40				44			47									56									66						71			74	75					80																					100
B-	B*55:35								8		10										20															34				38	39	40							47									56	57	58														71			74	75					80																				
B-	B*55:37								8		10										20			23	24										34				38	39	40				44		46	47									56															71			74	75																										
B-	B*55:40																					20			23	24									33	34					39	40				44			47									56															71			74	75					80									89													100
B-	B*55:47								8		10										20			23	24		26								34				38	39	40				44			47									56															71			74	75					80																				
B-	B*55:51								8		10				14						20			23	24																38	39	40				44	45		47					52														67				71				75			78		80																				
B-	B*55:52								8		10										20			23	24										34					39	40				44		46	47									56															71			74	75														89											
B-	B*55:54/96								8		10										20			23	24										34					39	40				44			47									56															71			74	75					80																				
B-	B*55:56								8		10										20			23	24										34					39	40				44			47				51					56															71			74	75														89				93							
B-	B*55:57								8		10										20			23	24										34				38	39	40				44			47									56															71			74	75																									
B-	B*55:58								8		10										20			23	24																	39	40				44			47									56															71			74	75					80								88	89											
B-	B*55:64								8		10										20				24										34					39	40				44			47									56															71			74	75					80									89											
B-	B*55:68								8		10										20			23	24																	39	40				44			47									56															71			74	75					80							87		89											
B-	B*55:70								8		10										20															34				38	39	40							47									56															71			74	75					80																				
B-	B*55:78								8		10										20				24										34					39	40				44			47									56															71			74						80									89											
B-	B*55:81								8		10										20			23	24																38	39	40				44			47					52				56															71			74	75					80																				
B-	B*55:82		1							8		10										20			23	24										34				38	39	40				44													56															71			74	75					80																				
B-	B*55:88								8		10										20			23												34				38	39	40				44			47									56															71			74						80																				
B"Blank"	B*55:89N								8		10										20			23	24										34				38	39	40				44			47									56																			74	75					80																				
B-	B*55:90				3					8		10														23	24										34					39	40				44			47									56															71			74	75					80									89											
B-	B*55:99								8													20			23	24										34					39	40				44			47									56															71			74	75					80									89											
B56, B"Blank", B-	B*56:01:01:01~01:01:12/01:03~01:04/01:09~01:10/01:14/20:01~20:02/24/26~27/29/40~41/48~49/52/55:01:02/58/61~62/68~70/72								8		10										20			23	24										34				38	39	40				44	45		47																		67				71			74	75					80																				
B56	B*56:01:02/01:11								8		10										20			23												34				38	39	40				44	45		47																		67				71			74	75					80																				
B56	B*56:01:05								8		10										20			23	24																38	39	40				44	45		47																		67				71			74	75					80																				
B56, B-	B*56:01:06/01:12/73								8		10										20			23	24										34				38		40				44	45		47																		67				71			74	75					80																				
B56	B*56:01:07										10										20			23	24										34				38	39	40				44	45		47																		67				71			74	75					80																				
B56	B*56:01:08								8		10										20			23	24										34				38	39	40				44	45		47																		67							74	75					80																				
B56	B*56:01:13								8		10										20			23	24										34				38	39	40				44			47																									71			74	75					80																				
B56	B*56:01:15								8		10										20				24										34				38	39	40				44	45		47																		67				71			74	75					80																				
B56, B-	B*56:02:01:01~02:03/04:01:01~04:04/56								8		10										20			23	24										34				38	39	40				44	45		47																		67				71				75					80						86						91									
B22	B*56:03								8		10										20			23	24			27															39	40					45		47													60											71				75													86	87		89		91									
B56	B*56:05:01								8		10										20			23	24																										44	45		47	48				52																						71			74	75					80	81								89											
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B78	B*56:06								8		10										20																																45		47	48				52																						71			74	75					80	81								89				94							

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Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																				
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																			
B56	B*56:07							8		10													23	24										34				38	39	40		42		44	45		47																			67				71			74	75					80																					
B-	B*56:08/14																					20				24									33	34				38	39	40				44	45		47																			67				71			74			77			80																					100
B-	B*56:09							8		10										20		23	24															38	39	40				44	45		47																			67				71				75					80							87			90										
B55	B*56:10							8		10										20		23	24										34				38	39	40				44			47											56														71				75					80						86					91									
B56	B*56:11							8		10										20		23	24															38	39	40				44	45		47																			67				71				75					80								88		90										
B55	B*56:12							8		10										20		23	24															38	39	40				44			47						52				56														71				75					80											91									
B56	B*56:13							8		10										20		23	24										34				38	39	40				44	45		47				51																67				71			74	75																									
B56	B*56:15							8		10										20		23	24															38	39	40				44	45		47							52																67				71			74	75					80																					
B-	B*56:16							8		10										20		23	24										34			37	38	39						44	45		47																			67				71			74	75					80																					
B-	B*56:17/53							8		10										20			24										34				38	39	40				44	45		47																			67				71			74						80																					
B-	B*56:18							8		10										20		23	24															38	39	40				44			47											56														71				75					80						86	87					91									
B"Blank"	B*56:19N							8		10										20		23	24										34				38	39	40				44			47																			67				71			74	75					80																					
B56	B*56:21							8		10								18					23	24																		40				44	45		47	48						52																	69		71			74	75					80	81								89												
B-	B*56:22							8		10										20		23	24															38	39	40				44	45		47															61						67				71			74	75					80								88												
B-	B*56:23							8		10										20			24										34				38	39	40				44			47											56														71			74						80					85															
B-	B*56:25							8		10										20		23	24										34					39	40				44	45		47																										71			74	75					80									89												
B"Blank"	B*56:28N																					20		23	24										34				38	39	40				44	45		47																			67				71			74	75					80																					
B-	B*56:30				4				8		10										20		23	24										34				38	39	40				44	45		47																										71			74	75					80																					
B-	B*56:31							8		10										20		23	24															38		40				44			47											56														71				75					80	81				86	87					91									
B-	B*56:32							8		10										20		23	24																39	40				44			47											56														71				75					80						86	87		89		91									
B-	B*56:33							8	9	10										20			24										34				38	39	40				44	45		47																			67				71			74						80																					
B-	B*56:34							8		10										20		23	24										34				38		40				44	45		47																			67				71			74	75					80	81																			
B-	B*56:35							8		10										20		23	24										34				38	39	40				44	45																							67				71			74	75					80																					
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B-	B*56:37							8		10										20		23	24										34						40				44	45		47																										71			74	75					80									89												
B"Blank", B-	B*56:38N/47							8		10										20		23	24										34				38	39	40					45		47																			67				71			74	75					80																					
B-	B*56:39							8		10										20													34				38	39	40					45		47											57	58							67				71			74	75					80																					
B-	B*56:42		2						8		10										20			24										34				38	39	40				44	45		47																			67				71			74						80					85															
B-	B*56:43							8		10										20		23	24										34				38	39	40				44	45		47														60							67				71			74	75																									
B-	B*56:44							8		10										20			24		26		28					34				38	39	40				44	45		47																			67				71			74						80					85															
B-	B*56:45							8		10										20													34				38	39	40					45		47																			67				71			74	75					80														94					
B-	B*56:46		3					8		10													23	24										34				38	39	40				44	45		47																			67				71			74	75					80																					
B-	B*56:50							8		10										20		23	24															38	39	40				44	45		47																			67				71			74	75					80							87													
B-	B*56:51/63							8		10										20		23	24										34				38	39	40				44	45	46	47																			67				71				75											86					91									
B-	B*56:54		2						8		10										20			24										34				38	39	40				44			47											56														71			74						80					85															
B-	B*56:57																					20		23	24										34				38	39	40				44	45		47																			67				71				75					80						86					91									
B-	B*56:59							8		10										20		23	24										34					39	40				44	45		47																										71			74	75					80																					
B-	B*56:60							8		10										20		23	24										34				38	39	40				44			47																										71		73		75					80																					
B-	B*56:64							8		10										20		23	24										34				38	39	40				44	45		47																		64			67				71			74	75					80																					
B-	B*56:65							8		10								18					23	24										34				38	39	40				44	45		47																			67		69		71			74	75					80																					
B-	B*56:66							8		10										20		23	24										34					39	40				44			47											56														71				75					80						86			89											
B-	B*56:67																					20					25			28					34				38	39	40					45		47																		66	67				71			74						80					85														100
B-	B*56:71							8		10										20		23	24										34				38	39	40				44	45		47																			67				71				75					80																					
B-	B*56:74							8		10										20		23	24										34				38	39	40				44	45		47							55											67				71			74	75					80																					
B57, B-, B"Blank"	B*57:01:01:01~01:01:16/01:04~01:05/01:07/01:09~01:11/01:13~01:14/01:16/01:18/01:21/01:24~01:29/01:31/01:34/01:36~01:37/01:39~01:41/06/15/18/23/29/31:01~31:02/33/35~37/44/47~48/50/52/54~55/67:02~68/75/77/79N/85~86/90~92/95/97~98Q/100/102~103/105~106/108/110/113~116/121~123/125~127/130N/132~133					5											16		18																							38	39	40					45		47														58									67				71	72				76				80							87											98		
B57, B-	B*57:01:02/01:33/41/53/107					5											16		18																							38	39	40					45		47														58									67				71	72				76				80																	98		
B57	B*57:01:03					5											16		18																							38	39	40							47														58									67				71	72				76				80							87											98		
B57	B*57:01:06					5											16		18																							38		40					45		47														58									67				71	72				76				80							87											98		
B57	B*57:01:08/08					5											16		18																							38	39	40					45		47														58									67				71					76				80							87											98		
B57, B-	B*57:01:12/64~65					5											16		18																								39	40					45		47														58															71	72				76				80							87											98		
B57	B*57:01:15					5											16		18																							38	39	40					45																		58									67				71	72				76				80							87											98		
B57, B-	B*57:01:17/27/72					5											16		18																							38	39	40					45		47														58									67				71	72				76												87											98		
B57	B*57:01:19					5											16		18																							38	39	40					45		47			50								58									67				71	72				76				80							87											98		
B57	B*57:01:20					5											16		18																							38	39						45		47														58				62					67				71	72				76				80							87															
B57, B-	B*57:01:22/01:42~01:43/16/34/56/117					5													18																							38	39	40					45		47																			67				71	72				76				80							87											98		
B57, B-	B*57:01:23/20/62/81/89/109/128																16		18																							38	39	40					45		47														58									67				71	72				76				80							87											98		
B57, B-	B*57:01:30/40/99/112/131/134					5											16		18																							38	39	40					45		47														58									67				71	72								80							87											98		
B57	B*57:01:32					5											16		18																							38	39	40					45		47	48		50								58									67				71	72				76				80							87											98		
B57	B*57:01:35					5											16		18																							38	39						45		47														58									67				71	72				76				80							87											98		
B57	B*57:01:38					5																																			38	39	40					45		47														58									67				71	72				76				80							87											98		
B57	B*57:02:01:01~02:02					5											16		18																							38	39	40					45	46	47						52						58									67				71	72				76																						98		
B57, B-	B*57:03:01:01~03:05/17/66/70/94/96/101/124					5											16		18																							38	39	40					45		47						52						58									67				71	72				76				80																	98		
B57	B*57:04:01					5							12				16		18																							38	39	40					45	46	47															58									67				71	72				76																						98		
B57	B*57:04:02												12				16		18																							38	39	40					45	46	47															58									67				71	72				76																						98		

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LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																						
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																			
B57	B*57:04:03					5							12																										38	39	40					45	46	47											58									67				71	72				76																						98		
B-	B*57:05					5											16		18																						38	39	40					45	46	47											58									67				71	72																					90										98		
B-	B*57:07					5											16		18																						38	39	40					45		47					52			55			58									67				71	72				76				80																				98		
B-	B*57:09					5											16		18																							39	40					45		47				51	52						58														71	72				76													89											98		
B-	B*57:10		1				5											16		18																						38	39	40					45													58									67				71	72				76				80								87												98		
B-	B*57:11					5											16		18																						38	39	40					45		47											58									67				71	72								80			83				87												98		
B-	B*57:118					5											16		18																						38	39	40					45		47											58			61						67				71	72								80						86		88			91						98		
B-	B*57:119					5											16		18																						38	39	40					45		47				51			55			58									67				71	72				76													87												98		
B-	B*57:12					5															20																				38	39	40					45	46	47					52						58									67				71					76											85																98		
B-	B*57:120					5															18																						38	39	40					45		47																						67				71	72				76				80								87									94				98		
B-	B*57:129					5											16		18																							39	40					45		47											58														71	72				76													87												98		
B-	B*57:13					5											16		18																							39	40						46	47											58														71	72	73			76													87		89										98		
B-	B*57:14:01					5											16		18																						38		40					45		47			50								58									67				71	72				76				80	81						87												98		
B-	B*57:14:02					5											16		18																						38		40					45		47											58									67				71	72				76				80	81						87												98		
B-	B*57:19					5											16		18																						38	39	40					45	46	47											58									67				71	72				76													87												98		
B-	B*57:21/74					5											16		18																								40								47											58																72																													98		
B-	B*57:22					5											16		18																							39	40					45		47											58														71	72				76				80								87		89										98		
B-	B*57:24					5											16		18																						38	39	40					45		47				51							58									67				71	72				76													87												98		
B-	B*57:25					5											16		18																						38	39	40							47											58														71	72	73			76				80								87												98		
B-	B*57:26					5											16		18																						38	39	40							47									56		58														71	72				76				80								87												98		
B"Blank"	B*57:28N					5											16		18																						38	39	40					45	46	47											58									67				71	72				76																						98		
B-	B*57:30					5											16		18																							39	40					45	46	47											58														71	72				76													87												98		
B-	B*57:32					5											16		18																						38	39	40					45		47						53					58									67				71	72				76				80																				98		
B-	B*57:38					5											16																										38	39	40					45		47											58									67				71					76				80								87												98		
B-	B*57:39					5						11					16		18																						38	39	40					45		47					52						58									67				71	72				76				80																				98		
B-	B*57:42					5											16		18																							39	40					45	46	47					52						58									67				71	72				76																						98		
B-	B*57:43/61					5											16		18																						38	39	40							47											58														71	72				76				80								87												98		
B-	B*57:45					5															18							25												38	39	40					45		47		49																			67			70	71	72				76				80								87												98		
B-	B*57:46					5											16		18																							39	40					45		47					52						58														71	72				76				80																				98		
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B-	B*57:51					5						11							18							25												38	39						45		47																							67			70	71	72				76				80								87															
B-	B*57:57					5											16		18																							39	40					45		47					52						58														71	72				76				80										89										98		
B-	B*57:58					5											16		18																			37	38	39						45		47											58									67				71	72				76				80								87															
B-	B*57:59					5											16		18																						38	39	40			43		45		47											58									67				71	72				76				80								87												98		
B-	B*57:60					5											16																										38	39	40					45		47											58									67				71	72				76				80						85		87												98		
B-	B*57:63					5											16		18																							39	40					45	46	47					52						58														71	72				76															89										98		
B-	B*57:67:01					5											16		18																						38	39	40					45		47											58									67				71	72				76				80								87			90								98		
B-	B*57:69					5															18							25												38	39						45		47																							67			70	71	72				76				80								87															
B-	B*57:71					5											16		18																						38	39						45		47		49									58									67	68			71	72				76				80								87															
B-	B*57:73					5						11					16		18																						38	39	40					45		47											58									67				71	72				76				80								87												98		
B-	B*57:76					5											16		18																						38	39	40					45		47											58									67				71	72				76				80									88											98		
B-	B*57:78/104					5											16		18																						38	39	40					45		47																							67				71	72				76				80								87												98		
B-	B*57:80					5											16		18																			37	38	39						45		47					52						58									67				71	72				76				80																				
B-	B*57:82					5											16		18																						38	39	40					45		47					52						58									67				71	72								80						86															98		
B-	B*57:83					5											16		18																						38	39	40					45		47											58									67				71	72								80						86	87				91						98		
B-	B*57:84					5											16		18																						38	39						45		47					52						58									67				71	72				76				80																				
B-	B*57:87/111					5											16		18																						38	39						45		47											58									67				71	72				76				80								87															
B-	B*57:88					5											16		18																						38	39	40					45		47		49									58									67	68			71	72				76				80								87												98		
B-	B*57:93					5											16		18																						38	39	40					45		47							55			58									67				71	72				76				80								87												98		
B58, B-, B"Blank"	B*58:01:01:01/01:01:03~01:01:09/01:03~01:09/01:12/01:15~01:19/01:22~01:25/01:28~01:35/10N~11/13/21/23~24/26/31N/33/48/50~53/55~58/61~63/66/68~69/71~72N/77/81~82/86/89~90/92~95/97/99/101/103/105~106/108~109/112~113/115~117/119~120/125					5															18																						38	39	40					45		47																							67				71	72								80								87			90				94				98		
B58, B-	B*58:01:02/59:01/88					5															18																						38	39	40					45		47																							67				71	72								80								87							94				98		
B58	B*58:01:10					5															18																						38	39	40					45		47																							67				71									80								87			90				94						
B58, B-	B*58:01:11/87/126					5															18																						38		40					45		47																							67				71	72								80								87			90				94				98		
B58, B-	B*58:01:13/98					5															18																							39	40					45		47																							67				71	72								80								87			90								98		
B58, B-, B"Blank"	B*58:01:14/39N/54/83/85/110					5															18																						38	39	40					45		47																							67				71	72								80								87			90								98		
B58	B*58:01:20					5															18																						38	39	40					45		47																							67				71	72								80								87			90	91			94				98		
B58, B-	B*58:01:21/04/29/32/100																				18																						38	39	40					45		47																							67				71	72								80								87			90				94				98		
B58, B-	B*58:01:26/118					5															18																						38	39	40							47																															71	72								80								87			90				94				98		
B58, B-	B*58:01:27/49/67/74/123					5															18																						38	39	40					45																											67				71	72								80								87			90				94				98		
B-	B*58:02:01:01~02:01:03/25/43/60/104					5															18																						38	39	40					45		47																							67				71	72								80			83				87			90				94				98		
B-	B*58:02:02					5															18																						38	39	40					45		47																							67				71	72													83				87			90				94				98		
B-	B*58:05					5															18																							39	40								47									56																			71	72								80								87			90				94				98		
B-	B*58:06/46					5															18																							39	40					45		47																															71	72								80			83				87		89	90				94				98		
B-	B*58:07					5															18																						38	39	40					45		47							55													67				71	72								80			83				87			90				94				98		
B17	B*58:08:01					5															18																																		45		47	48					52										62										71	72		74						80	81								89					94						
B17	B*58:08:02					5															18																								40					45		47	48					52																						71	72		74						80	81								89					94				98		
B-	B*58:09					5															18																						38		40					45		47																							67				71	72								80	81						87			90				94				98		

WORKSHEET

LABType™ SSO Class I B Locus Typing Test, Lot #020

Name ____________________ Sample ID ____________________

HLA Locus

		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																																																																																																					
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%	30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%	30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%	35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Serology Equivalent	**Allele Group**																																																																																																					
B-	B*58:102/124					5														18																				38	39	40					45		47																					67				71	72								80										90				94				98		
B-	B*58:111					5														18							25															38	39	40					45		47		49																			67				71	72								80							87			90								98		
B-	B*58:114					5							12						18																						38	39	40					45		47																					67				71	72								80											91			94				98		
B-	B*58:12					5														18																			37	38	39						45		47																					67				71	72								80							87			90				94						
B-	B*58:121					5														18													30										38	39	40					45		47																					67				71	72								80						86	87			90				94				98		
B-	B*58:122					5														18																						38	39	40					45		47																					67				71	72		74						80							87			90				94				98		
B-	B*58:14					5														18																						38	39	40					45		47			50																		67				71	72				76				80							87			90				94				98		
B-	B*58:15/42/70					5														18																						38	39	40					45		47																					67				71									80							87			90				94				98		
B-	B*58:16:01					5														18																						38	39	40					45		47																					67				71	72								80						86	87			90	91			94				98		
B-	B*58:16:02					5														18																						38	39	40					45		47																					67				71	72								80						86	87			90				94				98		
B"Blank", B-	B*58:17N/75					5																																				38	39	40					45		47																					67				71	72								80							87			90				94				98		
B-	B*58:18					5														18																						38	39	40					45		47																					67				71	72						78		80							87			90				94				98		
B-	B*58:19/91					5														18																							39	40					45		47																									71	72								80							87		89	90				94				98		
B58	B*58:20					5		7												18																						38	39	40							47									56					61										71	72														86		88			91			94				98		
B-	B*58:22					5														18																						38	39	40					45	46	47																					67				71	72															87			90				94				98		
B-	B*58:27					5									14				18																						38	39	40							47					52																					71	72	73					78		80														94				98		
B-	B*58:28:01					5														18																						38	39	40					45		47					52																67				71	72								80													94				98		
B-	B*58:28:02					5														18																						38	39	40					45		47					52																67				71	72								80										90				94				98		
B-	B*58:34					5														18																						38	39	40					45		47																					67				71	72								80								88		90				94				98		
B-	B*58:35					5														18																						38	39	40							47									56															71	72								80							87			90				94				98		
B-	B*58:36					5											16		18																						38	39	40					45		47											58									67				71	72								80							87			90								98		
B-	B*58:37					5														18																						38	39	40							47																									71	72	73							80							87			90				94				98		
B-	B*58:38					5														18																							39	40					45		47																									71	72								80			83				87			90				94				98		
B-	B*58:40/45:01~45:02					5														18																						38	39	40					45		47																					67					72								80							87			90				94				98		
B-	B*58:41					5						11								18																						38	39	40					45		47																					67				71	72								80							87			90				94				98		
B-	B*58:44					5	6													18							24																	38	39	40				44	45		47																					67				71	72								80							87			90								98		
B-	B*58:47/79~80/107					5														18																						38	39						45		47																					67				71	72								80							87			90				94						
B-	B*58:59:02					5														18																						38	39	40					45		47																					67				71	72								80							87				91			94				98		
B-	B*58:64					5															20																				38	39	40					45		47																					67				71									80					85		87			90				94				98		
B-	B*58:65					5														18																						38	39	40					45		47					52								59									67				71	72								80										90				94				98		
B-	B*58:73					5														18																	34				38	39	40					45		47																					67				71	72								80													94				98		
B-	B*58:76					5														18																						38		40							47									56																72								80	81						87			90				94				98		
B-	B*58:78					5														18										27													39	40					45		47												60												71	72															87		89	90				94				98		
B-	B*58:84					5		7												18																						38	39	40							47									56															71	72															87			90				94				98		
B-	B*58:96					5																																				38	39	40					45		47																					67				71									80							87			90				94				98		
B59, B-, B"Blank"	B*59:01:01:01~01:01:02/07/10N								8		10								18	19					24										34				38	39	40				44			47									56														69		71	72		74						80																				
B59	B*59:02								8		10								18	19					24															38	39	40				44			47					52				56														69		71	72		74						80																				
B-	B*59:03								8		10								18	19					24															38	39	40				44			47									56					61								69		71	72		74						80								88												
B-	B*59:04								8		10								18	19					24										34				38	39	40				44	45		47																					67		69		71	72		74						80																				
B-	B*59:05								8		10								18	19					24										34				38	39	40				44			47																							69		71	72		74						80																				
B-	B*59:06								8		10								18	19			22														34				38	39	40							47									56														69		71	72		74						80																				
B-	B*59:08								8	9	10														24										34				38	39	40		42		44			47									56																71	72		74						80																				
B-	B*59:09								8		10								18	19					24										34				38	39	40				44			47																							69		71	72	73	74						80																				
B67, B-	B*67:01:01/03	1						7			10										20			23	24													37	38	39					44												56					61										71				75											86		88			91									
B67, B-	B*67:01:02~01:03/05	1						7	8		10										20			23	24													37	38	39					44												56					61										71				75											86		88			91									
B-	B*67:02:01:01~02:01:02	1						7													20																	37	38	39																56					61										71						77					82				86		88			91									
B-	B*67:04	1						7													20			23	24													37	38	39					44												56					61										71				75											86		88			91									
B-	B*67:06	1						7			10										20			23	24													37	38						44												56					61										71				75						81					86		88			91									
B-	B*67:07	1						7			10										20			23	24													37	38	39					44												56					61										71				75											86		88												
B73	B*73:01:01:01~01:01:02								8		10					15					20				24														38																																							71		73	74						80	81							88										97			
B-	B*73:02								8		10					15					20				24														38																																							71			74						80	81							88													
B78	B*78:01:01:02~01:01:03								8		10									19	20																									45		47	48				52																								71			74						80	81								89					94						
B78	B*78:01:02										10									19	20																									45		47	48				52																								71			74						80	81								89					94						
B78	B*78:02:01								8		10									19	20																				40					45		47	48				52																								71			74						80	81				85				89					94						
B78	B*78:02:02								8		10									19	20																									45		47	48				52																								71			74						80	81				85				89					94						
B-	B*78:03								8	9	10										20																									45		47	48				52																								71			74						80	81								89					94						
B-	B*78:04								8		10									19	20																			38	39	40					45		47	48		50		52																67				71			74						80					85									94						
B-	B*78:05																				20								28												40					45		47	48				52															66					71			74						80	81				85				89					94						100
B-	B*78:06																				20																				40					45		47	48				52															66					71			74						80	81								89					94						
B-	B*78:07								8		10									19	20																											47	48				52				56								63									71			74						80	81								89					94						
B-	B*78:08								8		10									19	20																		38									47	48		50		52																				71		73	74						80	81													94			97			
B-	B*78:09								8		10									19	20																									45		47	48				52											62										71			74						80	81								89					94						
B-	B*78:10								8		10									19	20																		38							45		47	48		50		52											62					67				71			74						80	81													94						
B81, B-	B*81:01:01:01~01:02/01:04~03/05/07/10	1							8		10				14						20			23	24													37	38	39				43									52																							73		75			78		80															95					
B81	B*81:01:03	1					6		8		10				14						20			23	24													37	38	39				43									52																							73		75			78		80															95					
B"Blank"	B*81:04N	1									10				14						20			23	24													37	38	39				43									52																							73		75			78		80															95					
B-	B*81:06	1							8		10				14						20			23														37	38	39				43									52																							73					78		80		82													95					
B-	B*81:08	1							8		10				14						20			23	24													37	38	39				43									52																							73		75			78		80					85										95					
B-	B*81:09	1							8		10				14						20			23	24														38	39				43									52																							73		75			78		80															95					
B82	B*82:01:01:01~01:03								8		10										20			23	24										34			37	38	39					44			47				51				55																					71				75									84		86				90										
B-	B*82:02:01:01~02:01:02								8		10										20			23	24										34			37	38	39					44	45		47				51				55															67				71				75									84		86				90										
B-	B*82:02:02								8		10										20			23	24										34			37	38	39					44	45						51				55															67				71				75									84		86				90										
B-	B*82:03								8		10										20			23	24										34			37	38	39					44			47				51				55																					71				75											86				90										
B-	B*82:04								8		10										20			23	24										34			37	38	39					44	45		47				51																			67				71				75									84		86				90										
B-	B*83:01								8		10		12								20			23	24													37	38	39						45		47				51				55															67				71				75																		91									

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LABType™ SSO Class I B Locus Typing Test, Lot #020

Name

Sample ID

HLA Locus

Serology Equivalent	Allele Group	001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025
Reaction Results (mark positive locations)																										
Cut Off Value		18%	30%	35%	15%	20%	15%	30%	20%	25%	45%	19%	39%	100%	15%	30%	20%	18%	30%	25%	30%	20%	10%	30%	20%	20%
Cw6, C-	C*06:02:01:15; C*12:03:01:04																									
Cw7	C*07:01:01:86																									

Serology Equivalent	Allele Group	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050
Reaction Results (mark positive locations)																										
Cut Off Value		30%	25%	20%	20%	15%	40%	100%	25%	25%	2%	35%	15%	13%	20%	10%	30%	15%	15%	15%	40%	15%	20%	20%	25%	15%
Cw6, C-	C*06:02:01:15; C*12:03:01:04		27												39											
Cw7	C*07:01:01:86														39											

Serology Equivalent	Allele Group	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075
Reaction Results (mark positive locations)																										
Cut Off Value		30%	20%	40%	25%	25%	25%	30%	20%	45%	25%	12%	15%	12%	15%	20%	30%	25%	15%	15%	15%	50%	25%	50%	30%	40%
Cw6, C-	C*06:02:01:15; C*12:03:01:04						56				60			63								71				
Cw7	C*07:01:01:86						56															71				

Serology Equivalent	Allele Group	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100
Reaction Results (mark positive locations)																										
Cut Off Value		35%	20%	35%	20%	30%	30%	40%	20%	15%	30%	15%	8%	13%	15%	15%	20%	20%	20%	10%	40%	15%	30%	30%	20%	30%
Cw6, C-	C*06:02:01:15; C*12:03:01:04								83						89	90										
Cw7	C*07:01:01:86					80						86				90										

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LABType™ SSO Class I C Locus Typing Test, Lot #015

☐ Patient ☐ Male
☐ Donor ☐ Female

Name

Race

ABO/Rh

Sample I.D.

Birthdate

Relationship to Patient

Disease

DNA Extraction Method

Bead Mix Exp. Date

DNA Concentration

Bead Mix Lot#

Results

Taq Lot #

Primer Mix Lot#

D-mix Lot #/Batch #

SAPE Solution Lot#

Comments:

LABScan™ 100 Serial#

Raw Data File ID

Test Performed by

Date

Read by

Date

Reviewed by

Date

Photo Documentation

The allele nomenclature includes the HLA alleles listed in the January 2021 update of the IMGT/HLA database release 3.43.0 (Robinson J, et al., "IMGT/HLA and IMGT/MHC: sequence databases for the study of the major histocompatibility complex" Nucleic Acids Research (2003), 31, 311-314). Complete update information is located at www.ebi.ac.uk/imgt/hla/.

Revision summary: January 2021 nomenclature update based on IMGT/HLA 3.43.0.

(Bead 60) Mismatch occurs at 5' end for C*04:31. DNA not available for testing.

Allele sequences are obtained from the IMGT database. Updates, including modifications to allele sequences may alter bead specificity.

Beads (16, 41, 55, 89, 99): Typing results for a sample having positive reaction with these beads may also include B*39:136.

Beads (61, 98, 99): Typing results for a sample having positive reaction with these beads may also include B*08:01:01:12.

C*07:01:01:73, C*07:02:01:34, C*08:195 are not amplified at exon 2. B*08:01:01:12, B*39:136 are amplified at exon 3. C*01:02:01:10, C*01:137N, C*01:197, C*02:02:49, C*02:123, C*03:154, C*03:262, C*03:412, C*03:475, C*04:01:01:56, C*04:117, C*04:136, C*04:232, C*04:408, C*04:421, C*05:07N, C*05:245, C*06:02:01:15, C*06:105, C*07:02:01:73, C*07:04:07, C*07:195, C*07:444, C*07:488, C*07:726N, C*07:747N, C*07:776N, C*07:839N, C*08:34, C*08:171, C*08:180N, C*12:03:01:04, C*12:134, C*12:270N, C*12:313, C*12:331, C*15:225, C*16:02:04 are not amplified at exon 3. The following alleles have mismatches with primers in this kit, and their amplifiability has not been determined: C*03:35:02:02, C*07:01:01:25, C*07:01:01:26, C*07:02:01:72, C*12:19, C*12:59, C*14:02:06, C*14:02:23, C*17:03:01:04

Not all alleles were directly tested. Untested alleles were predicted and, therefore, may cause false reactions. Refer to 'Nomenclature List' for the list of tested alleles.

Serological equivalent for alleles are based on the HLA Dictionary (S.G.Marsh, et al.: "Nomenclature for factors of the HLA system, 2010," Tissue Antigens (2010) 75:291-455)

The allele specificity for some beads include alleles with unsequenced regions at the target site. (Sequence information is available at www.ebi.ac.uk/imgt/hla/.) For these alleles, the published sequence from the most closely related allele is used as reference for the unsequenced regions. The reference allele provides the most likely prediction of the unsequenced regions. There may be a disparity between the predicted and newly sequenced information, which may alter the allele specificity of a bead Allele specificity information will be updated as new sequence information is available.

This product is intended for low resolution HLA typing results. Typing results outside this specification may produce ambiguities that require additional testing to resolve.

The following alleles are not included in this kit: None

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Reaction Results (mark positive locations)																																																																				
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
P.C.	Positive Control						13													32																																														
N.C.	Negative Control																					35																																												
B-	B*08:01:01:12																																										61																						98	99
B-	B*39:136							16																		41											55																						89								99
Cw1, C-, C"Blank"	C*01:02:01:01/02:01:03~ 02:01:09/02:01:11~02:07/02:09/ 02:11~02:12/02:14~02:16/02:18~ 02:27/02:29~02:30:02/02:32~ 02:35/02:38~02:49/02:54~02:58/ 02:61~02:74/07:01/11/15:01~ 15:02/20/25~27/29~30/32:01~33/ 38/40~42/44~45/48/52~53/56N/ 62~64/66/71/73/76/80~86N/88~ 94/96/99~100/103~104/106/108~ 113/115~117N/119/122~124/126~ 127/130/132~133/135~136/138~ 139/141~145:02N/146:02/150~ 151/155/158~159/161/163~167/ 170/172~176/178~183/185Q/187~ 192/194/196/198/200~201		3	4																		36		40													56	57	58		60	61																		91					99
Cw1, C-	C*01:02:01:02/02:31/02:53/58		3	4																			36		40													56		58		60	61																		91					99
Cw1, C"Blank", C-	C*01:02:01:10/137N/197		3	4																					40														57	58																						91					
Cw1, C-	C*01:02:08/02:17/02:50/68/105/ 129/147~148/153/184		3	4																			36		40													56	57	58		60																			91					99
Cw1, C-	C*01:02:10/02:28/02:59/39/67/ 75/125/156		3	4																			36		40													56	57			60	61																		91					99
Cw1, C-	C*01:02:13/18/72/74/134		3																				36		40													56	57	58		60	61																		91					99
Cw1, C-	C*01:02:36/07:02/28		3	4																			36		40														57	58			61																		91					99
Cw1, C-	C*01:02:37/02:52/08/149		3	4																			36		40													56	57	58			61																		91					99
Cw1, C"Blank", C-	C*01:02:51/46/70/171N		3	4																			36															56	57	58		60	61																		91					99
Cw1, C-	C*01:02:60/31/87/121Q/140/162/ 199		3	4																			36		40													56	57	58		60	61																		91					
Cw1, C-	C*01:03:01~03:02/24		3	4																			36		40		42											56	57	58		60	61						73					80						91					99
C-	C*01:04		3	4																			36		40														57	58			61																		91					99
C-	C*01:05		3	4																					40													56	57	58		60	61				66														91					99
C-	C*01:06		3	4											27								36		40													56	57	58			61																		91					99
Cw1	C*01:09:01~09:02		3	4																			36		40														57	58			61											80						91					99
C-	C*01:10		3	4																			36	38	40													56	57	58		60	61																		91	92				
C-	C*01:107		3	4																			36		40													56	57	58		60	61					70													91					
C-	C*01:114:01~114:02		3	4																					40													56	57	58		60	61	62																	91					99
C-	C*01:118		3							18													36		40													56	57	58		60	61															88			91					99
C-	C*01:12:01		3	4					17																40													56	57	58		60	61																		91					99
C-, C"Blank"	C*01:12:02/37N/77/79:02/101~ 102/120/193		3	4																					40													56	57	58		60	61																		91					99
C-	C*01:128		3							18													36		40													56	57	58		60	61																							99
C-	C*01:13		3	4																			36		40			43										56	57	58		60	61																		91					99
C-	C*01:131		3	4								21													40							50								57	58			61					70										89		91					

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
	Cut Off Value	15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*01:14			4															31				36															56	57	58		60	61															86				91					99
C-	C*01:146:01		3	4																			36		40													56	57	58		60	61								76										91					99
C-	C*01:152		3	4																			36		40													56	57	58		60	61						73																	99
C-	C*01:154			4															31				36															56	57	58		60	61																			91					99
C-, C"Blank"	C*01:16~17/95/98N/157		3	4																			36		40													56	57	58		60	61																								99
C-	C*01:160		3	4				16															36		40														57	58			61																89		91					99
C-	C*01:168		3	4									25										36		40													56	57			60	61																			91					99
C-	C*01:169:01		3	4									25										36		40									52				56	57			60	61																			91					99
C-	C*01:169:02; C*03:94		3	4																			36		40													56	57			60	61							75																	99
C-	C*01:177		3	4	5	6																	36		40													56	57			60	61																	91					99
C-	C*01:186		3	4																			36		40													56	57	58		60	61		63															91					99
C-	C*01:19/61			4																			36		40													56	57	58		60	61																			91					99
C-	C*01:195		3							18													36		40													56	57	58		60	61																			91					99
C-	C*01:21		3	4																					40	41													57	58			61						73				80													99
C-	C*01:22		3	4																			36		40														57	58			61																89		91					99
C-	C*01:23		3	4																			36		40													56		58		60	61																								99
C-	C*01:34		3	4					17																40		42											56	57	58		60	61								76										91		93			99
C-	C*01:35		3	4																			36		40														57	58			61					70										89		91					
C-	C*01:36:01~36:02		3	4																					40								51					56	57	58		60	61																			91					99
C-	C*01:43		3	4										26									36		40													56	57	58		60	61																			91					99
C-	C*01:47			4																			36															56	57	58		60	61																			91					99
C-	C*01:49:01~50		3	4																					40							50						56	57	58		60	61																			91					99
C-	C*01:51		3	4																			36		40													56		58		60	61											83						91					99
C-	C*01:54		3	4																			36		40													56	57	58		60	61						73											91					99
C-	C*01:55		3	4																					40		42						51					56	57	58		60	61																			91					99
C-, C"Blank"	C*01:57/69N			4																			36		40													56	57	58		60	61																								99
C-	C*01:59		3	4																			36		40													56	57	58		60	61															88			91					99
C-	C*01:60		3	4																			36		40												55	56	57	58		60																			91					99
C-	C*01:65		3	4								21											36		40													56	57	58		60	61																			91					99
C-	C*01:78		3	4																			36				42											56	57	58		60	61																			91					99
C-	C*01:79:01		3	4																					40	41												56	57	58		60	61																			91					99
C-	C*01:97		3	4																					40													56	57	58		60	61	62					73												91					99
Cw2, C-	C*02:02:01/128			4																				38		41			45										57				61						73	75			80				86			91	92				

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Reaction Results (mark positive locations)																																																																			
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
	C*02:02:02:01~02:02:52/02:07~02:11/02:14~02:15/02:17~02:20/02:22~02:23/02:25/02:27~02:28/02:31~02:34/02:36~02:39/02:41~02:43/02:45/02:47~02:48/02:50~02:55/02:58~02:59/08~10:05/10:07~11/15/20~21/25Q/29/34~35/39~42/44~45/48/50/52N~53:02/56/59/61:01~61:02/63/69~70/73/76/79/82~83/85~86/89~90/92N~93/95~96/98~103/105N~106/108~110/112~114/116~117/119~122/124~125/127/133/138~139/141~148/150N~151/153~155/159/161~163/168~179/183~186/188/192N~196/198~199			4														31					38		41			45										57				61					73	75			80				86				91	92				
Cw2, C-, C"Blank"	C*02:02:03/05:03/10:06/37~38:02N/46/57/60/64/67Q/74/81/130/140/157			4															31					38					45										57				61					73	75			80				86				91	92				
Cw2, C-	C*02:02:06/02:24/07/19/23/36:01~36:02/47/68/91/97/111/118/158			4															31					38		41			45										57				61						75			80				86				91	92				
Cw2, C-	C*02:02:12/187			4																				38		41			45										57				61					73	75			80								91	92				
Cw2	C*02:02:13/02:29/02:57			4															31					38		41			45										57				61					73	75			80			85	86				91	92				
Cw2, C-	C*02:02:16/28			4															31							41			45										57				61					73	75			80				86				91	92				
Cw2, C-	C*02:02:21/12			4															31					38		41			45										57				61					73	75			80									92				
Cw2, C-	C*02:02:26/26:02~26:03/30/181/189			4															31					38		41													57				61					73	75			80				86				91	92				
Cw2, C-	C*02:02:30/02:40/04/80/156/190~191			4															31					38		41			45										57				61					73				80				86				91	92				
Cw2, C-	C*02:02:35/72/160			4															31					38		41			45										57				61					73	75							86				91	92				
Cw2	C*02:02:44			4															31					38		41			45										57				61					73	75			80				86				91	92		94		
Cw2, C-	C*02:02:46/33/54/75			4															31					38		41			45														61					73	75			80				86				91	92				
Cw2, C-	C*02:02:49/123			4															31										45										57										75							86				91					
Cw2, C-, C"Blank"	C*02:02:56/66/78/84/136/165N~166																		31					38		41			45										57				61					73	75			80				86				91	92				
C-	C*02:03			4															31							41			45										57				61					73	75							86		89		91	92				
C-	C*02:05:01~05:02			4					17										31					38					45										57				61					73	75			80				86				91	92				
C-	C*02:06:01			4															31					38		41			45							54			57				61						75			80				86				91	92				
C-	C*02:06:02			4															31					38					45							54			57				61						75			80				86				91	92				
C-	C*02:104			4															31					38		41			45										57				61		63			73	75			80				86				91	92				
C-	C*02:107			4												28			31					38		41													57				61					73				80				86				91	92				
C-	C*02:115		3	4																				38	40	41			45														61					73	75			80									92				
C-	C*02:126/129			4															31					38		41			45										57				61					73	75			80								91	92				
C-	C*02:13			4				16									29		31							41			45										57				61					73	75			80				86				91	92				
C-	C*02:131		3	4																				38	40	41			45										57				61					73	75			80									92				
C"Blank"	C*02:135N			4															31							41			45										57				61					73	75							86				91	92				

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*02:14:01~14:02/164			4												28			31					38		41			45										57				61						73				80				86				91	92				
C-	C*02:149			4															31					38		41			45										57				61						73	75			80				86				91					
C-	C*02:152			4									25						31					38		41								52					57				61						73				80				86				91	92				
C-	C*02:16:02/137			4															31					38		41			45										57				61						73	75							86		89		91	92				
C-	C*02:17			4															31					38					45										57				61	62					73	75			80				86				91	92				
C-	C*02:18			4				16											31							41			45										57				61						73	75							86		89		91	92				
C-	C*02:180			4				16											31							41			45								55		57										73	75							86		89		91					99
C-	C*02:182			4															31					38					45				51						57				61						73	75			80				86				91	92				
C-	C*02:197			4															31								42		45				51					56	57			60	61							75							86				91					99
Cw2	C*02:22			4															31					38		41	42		45										57				61							75	76		80				86				91	92				
C-	C*02:24/71			4															31					38		41			45										57										73	75			80				86				91	92				
C-	C*02:26:01/134/167			4									25						31					38		41													57				61						73				80				86				91	92				
C-	C*02:27:01~27:02		3	4																				38	40	41			45										57				61						73	75			80								91	92				
C-	C*02:31/132			4															31							41			45										57				61						73	75			80				86				91					
C-	C*02:32			4															31					38		41			45									56	57			60	61						73	75							86				91	92				
C-	C*02:43:01~43:02			4															31							41			45										57				61						73	75			80				86				91					99
C-	C*02:49			4															31					38		41			45														61						73	75			80				86					92				
C-	C*02:51			4															31					38		41		43	45										57				61						73	75			80				86				91	92				
C-	C*02:55:01~55:02/88			4															31					38		41			45										57				61						73	75			80				86					92				
C-	C*02:58			4															31							41			45										57				61					70	73	75			80				86				91					
C-	C*02:62			4															31					38					45			50							57				61						73	75			80				86				91	92				
C-	C*02:65		3	4																				38	40	41			45										57				61						73	75			80					88			91	92				
C-	C*02:77			4															31					38					45										57				61				66		73	75			80				86				91	92				
C-	C*02:87		3	4									25	26										38	40	41													57				61						73				80								91	92				
C-	C*02:94			4										26					31					38		41			45										57				61						73	75		78	80				86				91	92				
Cw10, C-, C"Blank"	C*03:02:01~02:08/02:11~02:13/ 02:16~02:20/02:23~02:25/36/84/ 95/108/110/139/146/169Q/190/ 197~198/200/221/224N~226/298~ 299/301/329~330/332/349~350/ 365/373/391N/402~403/406/411/ 425/429/449N/452/468/473/489/ 497/505/544		3	4								21													40														57				61					70	73	75									89		91					
Cw10, C-	C*03:02:09/264		3	4								21													40														57				61					70	73										89		91					
Cw10	C*03:02:10		3	4								21	25												40														57				61					70	73										89		91					
Cw10, C-	C*03:02:14/371			4								21													40														57				61					70	73	75									89								
Cw10, C-	C*03:02:15/04:64/05/17:02/25/ 35:01/143/153/199/238/245/292/ 296:01~296:02/326/335/353/355/ 407/439/464/482/493~494/532		3	4								21													40														57				61					70		75									89		91					
Cw10	C*03:02:21			4								21													40														57				61					70	73	75									89		91					
Cw10	C*03:02:22		3	4								21													40														57				61						73	75										89		91					

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Reaction Results (mark positive locations)																																																																					
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
Cw9, C-, Cw3, C"Blank"	C*03:03:01:01~03:05/03:08~03:14/03:16~03:17/03:19~03:20/03:22~03:24/03:26~03:27/03:29~03:42/03:44~03:49/03:53~03:54/03:56~03:59/11:01~11:02/18:02~18:03/20N/22Q/50/52/56/62/66/75/81/83/88/102/112/116:01~116:02/120/122/124/133/141/150/152/158/168/171/175~176/185/187/189N/192/196/203/205~207/214/217/223/227~229N/237/241~242/253~254/273/275/285/288/290~291/307/312/319~321/324/327/336/341/345/356~357/360/363N~364/370/372:01~372:02/374~375/378/380N/383/389/398/418/421N~422/427~428/432N~433/436/440/444N/447N/460/471~472/476~477/479/481/490/503/506/509N/514~517/519~520/527~529/533/537/541/545		3	4								21												40							50											61					70		75				83					89		91					
Cw9, C-	C*03:03:06/03:25/59		3	4								21													40							50											61					70		75				83							91					
Cw9, C-	C*03:03:07/03:28/03:50/30/79/204/284/304/367/507		3	4								21													40							50																70		75				83					89		91					
Cw9	C*03:03:15/03:55			4								21																				50											61					70		75				83					89		91					
Cw9, C-	C*03:03:18/68/85/188/289/430/542		3									21													40							50											61					70		75				83					89		91					
Cw9, C-	C*03:03:21/18:01		3	4								21	25												40							50											61					70						83					89		91					
Cw9, C"Blank", C-	C*03:03:43/53/377N			4								21													40							50											61					70		75				83					89							
Cw9, C-	C*03:03:51/76/126/144/182/195/295/351/416/495/524		3	4								21													40							50											61					70						83					89		91					
Cw9, C-	C*03:03:52/96/151/165:01~165:02/352/451/534		3	4																					40							50											61					70		75				83					89		91					

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Reaction Results (mark positive locations)																																																																				
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
Cw10, Cw3, C-, C"Blank"	C*03:04:01:01~04:03/04:05~04:06/04:08~04:10/04:12~04:16/04:18~04:20/04:22~04:25/04:27~04:28/04:30~04:36/04:39~04:40/04:42~04:55/04:57~04:61/04:63/04:65~04:66/04:68/04:71~04:76/04:78~04:83/04:86/06:01/09/19/23N~24/26:01~26:02/37:01~37:02/44/46/48/57:01~57:02/63~64:01/72~74/77/91:01~91:02/93/100~101/104~107/109/111/114/118/125/128/131/138/145/148~149/155/157/159/164/172~174/180~181/183/184:02/186:01~186:02/193/210~213/218~219/232~233/235~236/252/256/263:01~263:03/265N~266/270/281~282/294/303/305~306/310/314/317~318N/322/328/331/334/337/342~343/354/358~359/362/366N/368~369/376/379/381~382/387~388/392N~393/396N~397/401/404:01:01~405/408~410/417/419~420/423~424N/426/437/441~443/446N/448Q/453/455~456/458/462N~463N/465~467/470N/478/480/483~488/491:01~492/496/498~500/502/508N/510N~511N/513/521~523/526/538~539/543		3	4								21												40							50							57				61					70		75									89		91					
Cw10, C"Blank", C-	C*03:04:04/04:21/208N/257/323N/333/340/394/400/469/531N		3									21													40							50							57				61					70		75									89		91					
Cw10, C-, C"Blank"	C*03:04:07/04:70/41:01~41:02/51/147/260/286/348/435/445N		3	4																					40							50							57				61					70		75									89		91					
Cw10, C-	C*03:04:11/04:56/65/255/269/347		3	4								21													40							50							57									70		75									89		91					
Cw10, C-	C*03:04:17/04:69/04:77/115:01~115:02			4								21																				50							57				61					70		75									89		91					
Cw10, C-	C*03:04:26/64:02		3	4								21	25												40							50							57				61					70											89		91					
Cw10, C-	C*03:04:29/04:85/134			4								21													40							50							57				61					70		75									89		91					
Cw10, C-	C*03:04:37/399/415/501		3	4								21																				50							57				61					70		75									89		91					
Cw10, C-	C*03:04:38/32/283/339		3	4								21													40							50											61					70		75									89		91					
Cw10, C-	C*03:04:41/04:67/54/78/123/215/239/259		3	4								21													40							50							57				61					70		75											91					
Cw10, C-	C*03:04:62/06:02/98/244Q/313/525		3	4								21													40							50							57				61							75									89		91					

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Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
Cw10, C-	C*03:04:84/47/137/156/166/170/191/247/278/385/390/454/459/504		3	4								21													40						50								57				61					70										89		91					
Cw3	C*03:07:01:01~07:02			4								21							31													50								57				61					70		75						86		89		91					
C-	C*03:08		3							18		21													40							50								57				61					70		75								89		91					
Cw3	C*03:10			4								21							31													50								57				61					70		75								89		91					
C-	C*03:103		3	4								21													40							50												61				66	70		75				83					89		91					
C-	C*03:113:01~113:02		3	4																					40							50								57				61							75								89		91					99
C-	C*03:117		3	4								21													40							50							56	57			60	61							75										91					99
C"Blank", C-	C*03:121N/258		3	4								21													40														57									70	73	75								89		91					
C-	C*03:129		3	4								21													40							50			53				57									70		75								89		91					
C-	C*03:13:01:01~13:01:02/97/167/177/202/346		3	4								21													40																		61					70		75				83				89		91					
C-	C*03:13:02		3	4								21													40	41																	61					70		75				83				89		91					
C-	C*03:130		3	4								21													40							50								57				61					70		75							88	89							
C-	C*03:132		3	4								21													40																		61					70	73	75				83				89		91					
C-	C*03:136		3	4								21													40							50												61					70		75								89							
C-	C*03:14/361		3	4				16				21													40							50					55		57										73	75								89		91					99
C-	C*03:140:01:01~140:01:02		3	4								21													40							50								57				61					70		75							88	89		91					
C-	C*03:142		3	4								21												38	40							50												61							75			80	83						91	92				
C-	C*03:15			4								21							31																								61					70	73	75							86		89							
C-	C*03:154/412/475		3	4																					40														57											75										91					
C-	C*03:16		3	4																					40														57				61						73	75								89		91					99
C-	C*03:160/395/438		3	4								21																				50											61					70		75				83				89		91					
C-	C*03:161/535		3	4																					40							50											61							75				83				89		91					99
C-	C*03:162		3	4				16				21													40							50					55		57										70		75								89		91					
C-	C*03:163			4								21							31													50								57				61					70		75						86		89							
C-	C*03:17:01/249		3	4					17			21													40														57				61					70		75								89		91					
C-	C*03:178		3	4								21													40														57				61				66	70		75								89		91					
C-, C"Blank"	C*03:184:01/277N/311			4								21													40							50								57				61					70		75								89							
C-, C"Blank"	C*03:194/201N/222/536		3	4																					40														57				61					70	73	75								89		91					
C-	C*03:209/302		3	4								21											36		40														57				61					70		75								89		91					
C-	C*03:21		3	4								21													40							50												61							75			80	83						91					99
C-	C*03:216/315		3	4								21													40														57				61					70	73	75										91					
C-	C*03:220		3	4								21													40							50					55											70		75				83				89		91					
C-	C*03:230		3	4								21									33				40							50												61					70		75				83				89		91					
C-	C*03:231		3	4		6						21													40							50												61		63			70						83				89		91					
C-	C*03:234		3	4								21									33				40							50			53					57									70		75								89		91					
C-	C*03:243		3	4								21													40							50												61					70		75				83			88	89		91					
C-	C*03:246		3							18		21													40							50								57				61					70		75								89							
C-	C*03:248		3	4								21													40														57				61		63			70	73	75								89		91					
C-	C*03:250		3	4								21													40		42					50								57				61					70		75								89		91					
C-	C*03:251		3	4																					40							50						56			59	60	61							75				83						91					99
C-	C*03:261		3	4				16				21													40							50					55		57											75								89		91	92				
C-	C*03:262		3	4																					40																									75				83						91					
C-	C*03:267		3	4								21													40		42																61					70		75	76			83				89		91					
C-	C*03:268			4								21							31													50												61					70		75				83			86		89		91					

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*03:27		3	4								21													40													57				61					70		75								89							
C-	C*03:271		3	4								21													40																	61	62				70	73	75				83				89		91					
C-	C*03:272		3	4								21												38	40							50											61							75				83				89		91	92				
C-	C*03:276		3	4								21													40							50	51										61					70		75				83				89		91					
Cw10	C*03:28		3	4								21													40							50						56	57			60	61					70		75										91					
C-	C*03:280		3	4								21		26											40							50							57				61					70		75								89		91					
C-	C*03:287:01~287:02		3	4								21													40							50							57				61					70		75			80							91					
C-	C*03:29									18		21							31													50							57				61					70		75								89		91					
C-	C*03:293		3	4																					40							50						56	57			60	61							75										91					99
C-	C*03:297			4								21							31													50											61					70		75							86	89								
C-	C*03:300		3	4								21													40													57				61				66	70	73	75								89		91					
C-	C*03:308		3	4								21													40				45			50											61					70		75				83				89		91					
C-	C*03:309		3	4				16				21													40							50							57				61					70		75								89		91					
C-	C*03:31		3							18		21													40							50											61					70		75				83				89		91					
C-	C*03:325		3	4				16				21													40							50											61					70		75				83				89		91					
C-	C*03:33		3	4								21																											57				61					70	73	75								89		91					
C-	C*03:34		3	4								21												38	40							50							57				61							75								89		91	92				
C-	C*03:344:01:01~344:01:02		3	4								21				28									40							50							57				61					70										89		91					
C-	C*03:35:02:01~35:02:02/135		3	4								21													40	41													57				61					70		75								89		91					
C-	C*03:38:01~38:02/70/82/179		3	4								21													40							50							57				61					70		75								89							
C-	C*03:384		3	4																				38	40							50							57				61							75								89		91	92				
C-	C*03:386		3	4								21												38	40														57				61							75								89		91	92				
Cw3, C-	C*03:39/67		3	4								21				28									40							50											61					70						83				89		91					
C-, Cw3	C*03:40:01~40:04/42:01~42:02/ 240/279		3	4								21													40							50							57				61					70	73	75								89		91					
C-	C*03:413		3	4								21													40							50											61					70		75			80	83						91					
C-	C*03:414		3	4								21													40			43				50											61					70		75				83				89		91					
C-	C*03:43:01~43:02/119:01~119:02		3	4								21													40							50											61					70	73	75				83				89		91					
C-	C*03:431		3	4								21													40													57				61					70	73	75								89							
C-	C*03:434		3	4								21													40							50					55		57									70		75								89		91					
C-	C*03:45			4								21							31													50											61					70		75							86	89		91					
C-	C*03:450			4								21							31													50											61					70		75				83				89		91					
C-	C*03:457			4								21													40							50											61					70		75				83				89		91					
C-	C*03:461			4								21							31													50											61					70		75				83			86	89								
C-	C*03:474		3	4								21													40																	61				66	70		75				83				89		91					
C-	C*03:49		3	4								21													40							50						56				60	61					70		75				83						91					
C-	C*03:518		3	4								21													40							50	51							57				61					70		75								89		91					
C-	C*03:530		3	4								21	25	26											40							50							57				61					70										89		91					
C-	C*03:540		3	4																					40		42					50	51					56				60	61							75				83						91					99
C-	C*03:55		3	4								21													40							50											61							75				83				89		91					99
C-	C*03:58		3	4																			36		40		42											56				60	61							75				83						91					99
C-	C*03:60		3	4								21													40																		61					70	73	75								89		91					
C-	C*03:61		3	4								21													40							50											61							75				83				89		91					
C-, C"Blank"	C*03:69/127/274/316N		3	4								21													40							50											61					70		75				83				89							
C-	C*03:71		3	4					17			21													40													57				61					70	73	75								89		91					
C-	C*03:80:01/512		3	4																					40							50							57				61							75			80							91					99
C-	C*03:80:02		3	4								21													40							50							57				61							75			80							91					99

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Reaction Results (mark positive locations)																																																																					
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*03:86		3	4																			36		40													56				60	61							75				83						91					99
C-	C*03:87:01		3	4								21													40			43				50							57				61					70		75	76							89		91					
C-	C*03:87:02		3	4								21													40			43				50							57				61					70		75								89		91					
C-	C*03:89/338		3	4								21													40								51						57				61					70	73	75								89		91					
C-	C*03:90		3	4								21													40							50							57				61				66	70		75								89		91					
C-	C*03:92		3	4								21													40							50							57				61							75								89		91					99
Cw4, C-, C"Blank"	C*04:01:01:01~01:01:55/ 01:01:57~01:05/01:07~01:15/ 01:18~01:24/01:26~01:27/01:30~ 01:31/01:33/01:35/01:37~01:38/ 01:41/01:43/01:45/01:47~01:48/ 01:51/01:54/01:57~01:60/01:62/ 01:64/01:66~01:69/01:71~01:76/ 01:78~01:83/01:85~01:86/01:88~ 01:102/01:104~01:106:02/ 01:108~01:114/01:116~01:125/ 01:127~01:131/05/09N/19~20/24~ 25/28/30~31/35:01~35:02/38/40~ 41/43~46/49~52/56~57/62~64:02/ 66~67/69/73/75~76/78~79/81~84/ 88N/95N/98:01~99/102/104~106/ 109/116/118~119/124/128/130/ 133~134/137~142/144/146/148~ 151/156/161~165/167~168/170N/ 175~176/179~184/186~187/189/ 191N~193/195/197/199~201:01/ 204~205N/207~208/211/217N/219/ 221~222/226/228/233N~234N/237~ 238/241/244/248/251~252/254~ 255N/257~258/261~262/264/266~ 271/273~275/277~278/280/283~ 284/287~290/295~296/298/301~ 306/308~310/314~316/318~322/ 325~332/336/339:01~340/342~ 345/348~349N/352~354/356/358~ 359/361~362N/365N/371N~372/ 375/377N/379~380/384~386/388~ 392/394~399/403~404/406~407/ 409/411N~412/417N~420/423~426/ 429~435			4		6													31								42						51					56				60	61		63											86									99
Cw4, C-	C*04:01:01:56/117/136/232/408/ 421			4		6													31																										63												86									
Cw4, C-, C"Blank"	C*04:01:06/39/59Q/85/121/155/ 177/281/292/338Q/369N/373/ 382Q/413/428Q			4		6													31								42						51					56				60	61		63											86									

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Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
Cw4, C-, C"Blank"	C*04:01:107/86/91~92/132/173N/185/225N/259/285/300N/324/333/350N/364N/410N/416					6													31								42						51					56				60	61		63											86									99
Cw4, C-, C"Blank"	C*04:01:16/01:36/01:49/01:56/01:103/01:115/23/72/96/108/123N/127/135/154/202/218/229/245~246/312~313:01:02/341/376			4		6													31														51					56				60	61		63											86									99
Cw4, C-, C"Blank"	C*04:01:17/01:55/01:84/15:02/17/60/74/93N/125/224/242/260/276/374N/378			4		6													31								42											56				60	61		63											86									99
Cw4, C-	C*04:01:25/01:34/48/111/174/188/282			4		6													31								42						51										61		63											86									99
Cw4, C-, C"Blank"	C*04:01:28/01:39/01:61/01:63/01:65/26/71/90/145/196/198/206/239/243/307/311/317/355/415/427/436N			4															31								42						51					56				60	61		63											86									99
Cw4, C-	C*04:01:29/01:77/01:132/249			4		6																					42						51					56				60	61		63																					99
Cw4, C-, C"Blank"	C*04:01:32/01:40/01:53/01:70/01:87/18/53/65:01:01~65:01:02/126/152/158/203N/247/401			4		6													31								42						51					56				60			63											86									99
Cw4, C"Blank", C-	C*04:01:42/01:46/01:126/07:01~07:02/27/70/87/115N/131/157/159/213/216/236N/272/323			4		6													31								42						51					56				60	61													86									99
Cw4, C-	C*04:01:44/101/143/235/293/297			4		6													31								42						51					56					61		63											86									99
Cw4, C-	C*04:01:50/47/97/209/250/346			4		6																					42						51					56				60	61		63											86									99
Cw4, C-, C"Blank"	C*04:01:52/12/194/227/279N			4		6													31								42						51					56				60	61		63																					99
C-	C*04:03:01:01~03:07/171/256/286/337/393/400			4															31								42		45				51					56				60	61							75							86									99
C-	C*04:04:01:01~04:02/122			4		6													31								42						51										61		63											86		89							99
C-	C*04:06:01~06:03/357			4															31								42		45				51										61							75							86		89							99
C-	C*04:08			4		6													31								42						51					56				60	61		63			70									86									
Cw4, C-	C*04:10/210/347			4		6													31								42						51					56				60	61		63											86				91					99
C-	C*04:100			4		6													31													50						56				60	61		63											86									99
C-	C*04:103:01~103:02			4									25						31								42						51					56				60	61		63	64										86									99
C-	C*04:107			4															31								42		45				51					56	57			60	61							75							86									99
C-	C*04:11		3	4		6																			40		42						51					56	57			60	61		63														91					99
C-	C*04:110			4		6													31								42					50	51					56				60	61		63											86									99
C-	C*04:112					6				18									31								42						51					56				60	61		63											86									99
C-	C*04:113			4		6									27				31								42						51					56					61		63											86									99
C-	C*04:114		3	4		6																			40		42						51					56				60	61		63												88									99
C-	C*04:120			4		6													31								42						51					56			59	60	61		63											86									99
C-	C*04:129			4		6								26					31								42						51					56				60	61		63							78					86									99
C-	C*04:13:01:01~13:01:02			4		6		16											31								42						51										61		63											86		89							99
C-	C*04:14			4		6					19								31								42						51										61		63											86									99
C-	C*04:147			4															31								42		45				51					56				60	61					70		75							86									
C-	C*04:15:01/15:03			4		6													31							41	42											56				60	61		63											86									99
C-	C*04:153			4		6													31								42						51					56				60	61														86				91					99

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C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*04:16			4															31								42						51					56				60	61		63					75							86									99
C-	C*04:160			4				16											31								42		45				51				55												75							86		89							99
C-	C*04:166:01~166:02			4	5	6													31								42						51					56				60	61		63											86									99
C-	C*04:169					6				18									31								42						51					56	57			60	61		63											86				91					99
C-	C*04:172		3	4		6																			40		42						51					56	57			60	61		63																			99
C-	C*04:178			4		6													31													50				54							61		63											86		89							99
C-	C*04:190			4															31								42		45				51					56				60	61													86									99
C-	C*04:201:02			4		6						21							31								42						51					56				60	61		63											86									99
C-	C*04:212			4		6						21							31								42						51										61		63			70								86		89							
C-	C*04:214			4		6													31								42						51					56				60	61		63															91					99
C"Blank"	C*04:215N					6													31								42						51					56				60	61		63											86				91					99
C-	C*04:223:01			4		6													31								42	43					51					56				60	61		63						76					86									99
C-	C*04:223:02			4		6													31								42	43					51					56				60	61		63											86									99
C-	C*04:230			4		6			17										31								42											56				60	61		63											86						93			99
C-	C*04:231			4		6													31								42						51					56	57			60	61													86									99
C-	C*04:240			4		6													31								42											56				60	61		63		66									86									99
C"Blank", C-	C*04:253N/334			4		6													31								42						51									60	61		63											86									99
C-	C*04:263			4		6													31								42											56				60	61	62	63											86									99
C-	C*04:265			4		6													31								42						51										61		63											86		89			92				
C-	C*04:29		3	4		6																			40		42						51					56				60	61		63											86									99
C-	C*04:291			4		6													31		33						42						51										61		63											86		89							99
C-	C*04:294			4															31							41	42		45														61							75							86		89							99
C-	C*04:299			4																							42		45				51					56				60	61							75															99
C-	C*04:32/77			4		6													31					38			42						51					56				60	61		63											86					92				
C-	C*04:33			4		6													31								42						51					56	57			60	61		63											86									99
C-	C*04:335/402			4															31										45				51					56				60	61							75							86									99
C-	C*04:34			4		6													31								42						51										61		63			70								86		89							
C-	C*04:351:01~351:02			4															31								42						51					56				60	61							75							86									99
C-	C*04:36		3	4		6																			40		42						51					56				60	61		63															91					99
C-	C*04:360			4		6			17										31																								61		63				73				80			86									99
C-	C*04:363			4															31								42		45				51					56				60								75							86									99
C-	C*04:366			4		6													31								42						51		53			56				60			63											86									99
C-	C*04:367			4		6													31							41												56				60	61		63				73								86									99
C-	C*04:368			4		6													31								42						51		53		55								63											86		89							99
C-	C*04:37			4		6													31				36				42											56				60	61		63											86									99
C-	C*04:370			4		6													31								42					50						56				60	61		63											86									99
C-	C*04:381			4															31										45				51										61							75							86		89							99
C-	C*04:383		3	4																					40		42		45				51					56				60	61							75								88									99
C-	C*04:387			4		6													31								42	43										56				60	61		63						76					86									99
C-	C*04:405			4		6													31								42						51					56				60	61		63									83		86									99
C-	C*04:414			4		6													31								42						51					56	57			60	61		63											86				91					99
C-	C*04:42:01~42:02/220			4												28			31								42						51					56				60	61		63											86									99
C-	C*04:422			4		6													31													50											61		63											86		89							99
C-	C*04:54:01~54:02			4		6													31														51					56				60	61		63				73							86									99
C-	C*04:55		3	4		6																			40		42						51					56				60	61		63									83					91					99
C-	C*04:58			4		6		16											31								42						51				55								63											86		89							99
C-	C*04:61			4		6		16											31								42						51					56					61		63											86									99

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*04:68			4		6		16			19								31								42						51										61		63													86									99
C-	C*04:80			4															31								42		45			50							56				60	61							75							86									99
C-	C*04:89			4		6													31														51						56				60	61														86									99
C-	C*04:94:01~94:02			4		6													31								42						51											61		63								80				86									99
Cw5, C-, C"Blank"	C*05:01:01:01~01:01:53Q/01:04~01:08/01:10~01:17/01:19/01:21~01:26/01:28/01:32~01:42/01:46~01:50/01:52~01:54/01:57~03/05:01/06/13/15/21/24/28/31/33~34/37/40~41/48N/50/53~54/56~57/58:02/58:04~61/63/66~67/69/72~75/77/81~83/90/93~94/96/99N~100/102/104/108/114/119/122/124/126~128N/130/138~139/142/144~145/150/152~153N/158~159/161~162/165/167/169N/171:01:01~172/175N~180N/182~183/185~187/189/192~193/196/199/203~205/210/212~214/216:01:01~218/221~227/229~236/239N~240/242~243/246			4								25	26					31								42	43											56	57		59	60	61								76	78					86				91					99
Cw5, C-	C*05:01:02/01:18/01:20/01:31/14/149			4									25	26					31								42	43											56	57		59	60	61									78					86				91					99
Cw5, C-	C*05:01:03/05:02			4									25	26					31							41	42	43										56	57		59	60	61								76	78					86				91					99
Cw5	C*05:01:09			4									25	26					31								42											56	57		59	60									76	78					86				91					99
Cw5, C-, C"Blank"	C*05:01:27/49/95/110/125/154N/208N/237/244N			4									25	26					31								42	43											56	57		59	60									76	78					86				91					99
Cw5, C"Blank", C-	C*05:01:29/30/113N/156/160/202Q			4										26					31								42	43											56	57		59	60	61								76	78					86				91					99
Cw5, C-	C*05:01:30/09:01~09:03/44:01~44:02/118/133/164/173			4									25	26					31								42	43											56	57			60	61								76	78					86				91					99
Cw5	C*05:01:43			4									25	26													42	43											56	57		59	60	61								76						86				91					99
Cw5, C-, C"Blank"	C*05:01:44/29:01~29:02/92N/155/174/190/195			4									25						31								42	43											56	57		59	60	61								76						86				91					99
Cw5, C-	C*05:01:45/18:01/18:03/45/87/97/140/157/198/228			4									25	26					31								42												56	57		59	60	61								76	78					86				91					99
Cw5, C-	C*05:01:51/19/22:01/38/47/65/84/123/166/188/191/238			4									25	26					31									43											56	57		59	60	61								76	78					86				91					99
Cw5, C-	C*05:01:55/71/116/120~121/211												25	26					31								42	43											56	57		59	60	61								76	78					86				91					99
Cw5	C*05:01:56			4									25	26					31								42	43											56	57		59	60	61								76	78				85	86				91					99
C-	C*05:04:01/135			4									25	26					31									43											56	57		59	60	61						73		76	78					86				91					99
C-	C*05:04:02			4									25	26					31									43											56	57		59	60	61						73			78					86				91					99
C"Blank", C-	C*05:07N/245			4									25	26					31																				57														78					86				91					
C-	C*05:08/89			4									25	26					31								42	43												57		59		61								76	78	80					86				91					99
C-	C*05:10			4									25	26					31								42	43				50							56	57		59	60	61								76	78					86				91					99
C-	C*05:103:01~103:02			4									25	26					31																				56	57		59	60	61						73			78					86				91					99
C-	C*05:105			4									25	26					31					38			42	43											56	57		59	60	61								76	78					86				91	92				

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Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*05:106:01			4									25	26					31								42												57		59		61								76	78	80				86				91					99
C-	C*05:106:02			4									25	26					31								42												57		59		61									78	80				86				91					99
C-	C*05:107			4									25	26					31				36															56	57		59	60	61									78					86				91					99
C-	C*05:109/170			4									25	26					31								42	43										56	57		59	60	61								76	78														99
C-	C*05:11			4									25	26					31								42	43											57		59		61								76	78					86		89		91					99
C-	C*05:111			4									25	26					31								42	43										56	57		59	60	61					66			76	78					86				91					99
C-	C*05:112			4							19		25	26					31								42	43											57		59		61								76	78					86				91					99
C-	C*05:115			4				16					25	26					31								42												57		59		61								76	78					86		89		91					99
C-	C*05:12			4									25	26	27				31								42											56	57		59		61								76	78					86				91					99
C-	C*05:129			4									25	26													42	43			49							56	57		59	60	61								76										91					99
C-	C*05:131			4									25	26													42	43										56	57		59	60	61								76	78					86				91					99
C-	C*05:132			4									25	26					31									43								54		56	57		59	60	61								76	78					86				91					99
C-	C*05:134			4				16					25	26					31								42									55			57		59										76	78					86		89		91					99
C-	C*05:136			4									25	26					31								42	43							53			56	57		59	60									76	78					86				91					99
C-	C*05:141			4									25	26					31								42	43										56	57		59	60	61		63						76	78					86				91					99
C-	C*05:143			4				16					25	26					31								42									55	56	57													76	78					86				91					99
C-	C*05:146			4									25	26					31								42	43											57		59		61								76	78					86				91				98	99
C-	C*05:147/215			4									25	26					31									43										56	57		59	60	61									78					86				91					99
C-	C*05:148			4									25	26					31									43				50						56	57		59	60	61									78					86				91					99
C-	C*05:151			4									25	26					31								42									55			57		59							70			76	78					86		89		91					
C-	C*05:16			4					17				25	26					31								42	43										56	57		59	60	61								76	78					86				91		93			99
C-	C*05:163			4				16					25	26					31								42	43											57		59		61								76	78					86				91				98	99
C-	C*05:17			4				16					25	26					31								42	43											57				61								76	78					86		89		91					99
C-	C*05:18:02/18:04~18:06			4									25	26					31								42											56	57		59	60	61									78					86				91					99
C-	C*05:197			4									25						31								42	43							52			56	57		59	60	61								76						86				91					99
C-	C*05:20		3	4									25	26											40		42	43										56	57		59	60	61								76							88		91					99
C-	C*05:200			4										26					31								42	43										56	57	58	59	60	61								76	78					86				91					99
C-	C*05:206			4									25	26					31						38		42	43										56	57			60	61								76	78					86				91	92				
C-	C*05:207			4									25	26					31									43										56	57		59	60	61					66		73			78					86				91					99
C-	C*05:22:02			4									25	26					31							41		43										56	57		59	60	61								76	78					86				91					99
C-	C*05:23			4									25	26					31								42	43								55	56	57		59	60										76	78					86				91					99
C-	C*05:241			4									25	26					31				36					43										56	57		59	60	61								76	78					86				91					99
C-	C*05:25			4									25	26					31								42	43										56			59	60	61				64				76	78					86				91					99
C-	C*05:26			4									25	26					31								42	43	45									56	57		59	60	61								76	78					86				91					99
C-	C*05:27/184			4									25	26					31								42	43											57		59		61						70		76	78					86		89		91					
C-	C*05:32			4									25	26													42	43										56	57		59	60	61								76							88			91					99
C-, C"Blank"	C*05:35/80/91N/168/209/220			4									25	26					31								42	43										56			59	60	61								76	78					86				91					99
C-	C*05:36									18			25	26					31								42	43										56	57		59	60	61								76	78					86				91					99
C-	C*05:39			4									25	26					31								42	43										56	57		59	60	61						70		76	78					86				91					
C-	C*05:42			4									25	26					31								42	43										56			59	60	61				64				76	78					86									99
C-	C*05:43			4										26		28			31								42	43										56	57		59	60	61								76	78					86				91					99
C-	C*05:46:01:01~46:01:02/137			4									25	26					31								42	43										56	57		59	60	61								76	78					86									99
C-	C*05:51Q/101/181/194			4									25	26					31								42	43										56	57		59	60	61								76	78					86				91					
C-	C*05:52			4									25	26					31								42	43											57				61								76	78	80				86				91					99
C-	C*05:55			4									25	26					31								42	43										56			59	60	61									76	78		83			86				91					99
C-	C*05:58:01/58:03			4										26					31								42	43										56	57		59	60	61							75	76	78					86				91					99
C-	C*05:62			4				16					25	26					31								42	43								55			57		59										76	78					86				91				98	99

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C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*05:64:01~64:02			4									25	26					31								42	43					51					56	57		59	60	61							76	78					86			91					99
C-	C*05:68			4				16					25	26					31								42	43										57		59		61							76	78					86		89		91					99
C-	C*05:70/219			4									25	26					31								42	43											57		59		61							76	78					86			91					99
C-	C*05:76			4				16					25	26					31								42	43										56	57		59		61							76	78					86			91					99
C-	C*05:78:01~78:02			4		6								26					31								42	43										56	57		59	60	61							76	78					86			91					99
C-	C*05:79			4									25	26					31		33						42	43											57				61							76	78			84		86		89		91					99
C-	C*05:85			4									25	26					31				36				42	43										56	57		59	60	61							76	78					86			91					99
C-	C*05:86/201			4								21	25	26					31								42	43										56	57			60	61							76	78					86			91					99
C-	C*05:88/117			4									25	26					31								42	43										56	57		59		61							76	78					86			91					99
C-	C*05:98			4									25	26					31								42	43						52				56	57		59	60	61							76	78					86			91					99
Cw6, C-, C"Blank"	C*06:02:01:01~02:01:14/ 02:01:16~02:05/02:07~02:11/ 02:14~02:15/02:17~02:31/02:33~ 02:36/02:39~02:42/02:44~02:47/ 02:49~02:51/02:53~02:57/02:59~ 02:64/02:67/02:71/02:73~02:82/ 02:84~02:86/10/12~13/15/18~21/ 25~29/36~38/41/43:01~43:02/45~ 46N/49N~51/53:01~57/60/62~66/ 68/70:01~71/73/75/78/80/83~88/ 90~92/97/99~100/102:01~102:02/ 104/106:02/108~116N/119/121/ 126/133/135/137/139~141/146/ 148~152N/154~159/162~163/165~ 167/169~173/176~178/181~182/ 185/190/192/194~196/199/201~ 202/205~209/211:01:01N~214/ 216/218~220N/222~223/225~231/ 234~241/243~247/251/253/255/ 257N~263N/265~266/268~270/272~ 279/283~289/292~294/297~303/ 305/307~308/310~312/314~316N			4					17							28			31																						61						73				80			85	86									99
Cw6, C-	C*06:02:01:15/105			4												28			31																																					85	86								
Cw6, C-	C*06:02:06/02:83/33/77/125/ 188/254			4					17										31																								61						73				80			85	86								99
Cw6, C-	C*06:02:12/02:68/61/69/93/122/ 183			4					17							28			31																								61						73				80			85									99
Cw6, C"Blank", C-	C*06:02:13/134N/164/193/281N								17							28			31																								61						73				80			85	86								99
Cw6, C-	C*06:02:16/02:37/02:43/14/47/ 58/72/81/106:01/117/123/ 127:01:01~127:01:02/131/145/ 203/233/264			4												28			31																								61						73				80			85	86								99
Cw6, C-	C*06:02:32/02:69/221			4					17							28																											61						73				80			85	86								99
Cw6	C*06:02:38			4					17							28			31																								61						73				80			85	86							94	99
Cw6, C-	C*06:02:48/34:01~34:02/48/89/ 103/107/168/174/186/189/191/ 290/306			4					17							28			31																								61										80			85	86								99

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
Cw6	C*06:02:52			4					17							28			31																								61						73		76		80			85	86										99
Cw6, C"Blank", C-	C*06:02:58/02:70/16N/42:01~ 42:02/98/175N/242/250/256/291			4					17							28			31																														73				80			85	86										99
Cw6, C-	C*06:02:65/52/160/280			4					17							28																											61						73				80			85											99
Cw6, C-, C"Blank"	C*06:02:66/22/74Q/161/187/ 200Q/215N/267N/296/313			4					17							28			31																								61						73				80			85	86										
Cw6, C-, C"Blank"	C*06:02:72/07/17/32/39/94~95/ 128N/180/232/249/282/309N			4					17							28			31																								61						73				80				86										99
C-	C*06:03:01/132:01			4					17										31																								61						73	75			80			85	86										99
C-	C*06:03:02			4					17				25						31															52									61				64		73				80			85	86										99
C-	C*06:04:01/153			4					17							28			31																								61						73							85	86		89								99
C-, C"Blank"	C*06:04:02:01~04:02:02/24/40/ 59/79N/130/295			4					17							28			31																								61						73							85	86										99
Cw6	C*06:05			4					17					26		28			31																			56				60	61						73			78				85	86				91						99
C-	C*06:06:01:01~06:01:02/271			4					17							28			31																			56				60	61						73							85	86										99
C-	C*06:08			4					17							28			31					38																			61						73				80			85	86					92					
C-	C*06:09:01~09:02			4					17							28			31								42															61										80			85	86						93				99
C-	C*06:101/304			4												28			31														51										61						73				80			85	86										99
C-	C*06:11		3	4					17							28									40																		61						73				80			85											99
C-	C*06:118			4				16	17							28			31																		55												73							85	86		89								99
C-	C*06:120			4	5				17							28			31																								61						73				80			85	86										99
C-	C*06:124			4					17							28			31																								61						73				80			85						91					99
C-	C*06:127:02			4												28			31							41																	61						73				80			85	86										99
C-	C*06:129			4					17							28			31																					59			61						73				80			85	86										99
C-	C*06:132:02			4					17										31																								61						73	75			80				86										99
C-	C*06:138			4					17							28			31																								61						73				80			85	86					91					99
C-	C*06:142			4												28			31																								61	62					73				80			85	86										99
C-	C*06:143			4												28			31													50											61						73				80			85	86										99
C-	C*06:144			4												28			31								42																61										80			85	86										99
C-	C*06:147		3						17							28									40																		61						73				80			85											99
C-	C*06:179			4												28			31				36																				61										80			85	86										99
C-	C*06:184			4					17							28																											61						73				80			85		88									99
C-	C*06:197			4					17							28			31																								61					70	73							85	86		89								
C-	C*06:198			4					17							28			31																				57				61						73				80			85	86					91					99
C-	C*06:204			4												28			31				36															56	57			60	61													85	86										99
C-	C*06:210		3	4					17							28									40														57				61						73				80			85		88									99
C-	C*06:217		3	4					17							28									40														57				61						73				80			85						91					99
C-	C*06:224			4					17							28			31																	54							61										80			85	86										99
C-	C*06:23			4												28			31				36																				61						73				80			85	86										99
C-	C*06:248		3	4					17							28									40																		61						73				80			85						91					99
C-	C*06:252	2	3						17	18						28									40																		61						73				80			85											99
C-	C*06:30			4					17							28			31																				57				61						73				80			85	86										99
C-	C*06:31			4				16	17							28	29		31																								61						73				80			85	86										99
C-	C*06:35/136			4												28			31																								61				66		73				80			85	86										99
C-	C*06:44	2							17	18						28			31																								61						73				80			85	86					91					99
C-	C*06:67			4					17					26		28			31																								61						73			78	80			85	86										99
C-	C*06:76:01			4					17				25						31																								61				64		73				80			85	86										99

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
	Cut Off Value	15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*06:76:02			4					17				25						31																								61			64			73				80				86							94		99
C-	C*06:82		3	4					17							28									40																		61						73				80			85		88								99
C-	C*06:96			4					17							28			31																								61					70	73				80			85	86									
Cw7, C-, C"Blank"	C*07:01:01:01~01:01:72/ 01:01:74~01:02:08/01:05~01:06/ 01:08~01:12/01:17/01:19~01:24/ 01:26~01:32/01:34~01:37/01:39~ 01:40/01:42/01:44/01:47/01:49~ 01:59/01:61~01:65/01:67/01:71~ 01:75/01:77~01:85/01:87~01:98/ 06:01:01~06:04/18:01:01~18:08/ 20:01~21/24/36/44/52/57/59/65/ 69~71/73:01~73:02/77/81~83/86/ 89/91/93:01~94/98N/103~104N/ 106/109:01~113/116/118~119/ 124/129/131:01~131:02/134/ 150Q/153/156/162/164N/166/179~ 180/182/188~191N/204:01~206/ 214~215/222/227N~228/230/236~ 237/249~250/253/255/257:01/ 257:03/263/266/277/279~280/ 282/293/297~301/303/310~311/ 313/330:02/332/337/343:01:01~ 343:01:02/353/362/366/369/385/ 387/407~408/410/417~419/421~ 422/424/427/431/435/437N/442~ 443/448/450/453~455/458/460~ 463/469~471/475~476N/479/490~ 493/498~499/502/506/508/ 521:01~521:02/526:01~526:02/ 540/545~547/550/554~555/561/ 570/581/587~589/591/602~604/ 607/610/613~615/617~621/623~ 624/627/634~635/638/643/649~ 650:02/654/657~658/660/662~ 663Q/668/670/677/682:01:01~ 683/685/687/690N~691/694/696/ 699/701/706/708/712~713Q/718/ 720~721/728/731~732/734~735/ 739/746N/749N~750N/757~758/ 760/762/771/774/777~778/781~ 782/786~788/794~796N/800/802~ 803/805~806/808N/811/813~814/ 816/819Q/823~825/827/832~833/ 841/843~844/846/848/855~856N/ 859~860/863N~864/869/872~873/ 875/877~879/882/884/898/903		3					16		18							28									40												55												73											89							99

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Reaction Results (mark positive locations)																																																																				
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
Cw7	C*07:01:01:73							16																													55												73									89								99
Cw7, C-, C"Blank"	C*07:01:04/01:60/120/128/224/235Q/370~371/537/633N/804N		3					16		18						28									40												55												73									89								
Cw7, C-	C*07:01:07/257:02/257:04		3					16		18						28									40	41											55												73									89								99
Cw7	C*07:01:13	2	3					16		18						28									40												55												73							85			89							99
Cw7, C-	C*07:01:14/01:33/132/246:01~246:02/267/296/440~441:02/517/579/714		3					16		18															40												55												73									89								99
Cw7, C-	C*07:01:15/78:01~78:02/201/203/254/268/673		3					16		18						28																					55												73									89								99
Cw7, C-, C"Blank"	C*07:01:16/01:18/01:43/122/170/197/200/281/386/412/481/515/636/647/820N/887		3					16		18						28									40																								73									89								99
Cw7, C-	C*07:01:25/01:46/85/163/225/292/380/411/445/528		3					16								28									40												55												73									89								99
Cw7, C-	C*07:01:38/652/705		3					16		18						28									40												55												73																	99
Cw7, C-	C*07:01:41/01:70/223/276/571/653/669							16		18						28									40												55												73									89								99
Cw7, C-	C*07:01:45/01:76/331/430/468/527		3							18						28									40												55												73																	99
Cw7	C*07:01:48		3					16		18						28									40												55												73		76								89								99
Cw7, C-, C"Blank"	C*07:01:66/01:68~01:69/35/55N/173/219/231/248/256/269/522/536/549/834/893		3					16		18						28									40												55																					89								99
Cw7, C-	C*07:01:86/30/58/95/165/278/404/557/642/815		3							18						28									40												55												73									89								99

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Reaction Results (mark positive locations)																																																																				
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
	C*07:02:01:01~02:01:33/ 02:01:35~02:01:72/02:01:74Q~ 02:02/02:04~02:05/02:07~02:12/ 02:14~02:18/02:21/02:23~02:28/ 02:30~02:32/02:36:01~02:40/ 02:44/02:47/02:50~02:55/02:58~ 02:60/02:62/02:64/02:66~02:70/ 02:72/02:74~02:77/02:79~02:83/ 02:85~02:87/02:89~02:93/02:95~ 02:101/02:103~02:108/02:110/ 02:112~02:120/02:122~02:123/ 02:125~02:127/02:129~02:130/ 23/38:01~38:02/46/48/50/54/ 56:01~56:02/62/66/72/74/80/84/ 87~88/90/97/99~100/117/126~ 127:02/130/133:02/135/143~147/ 155/159~160/167~169/172:01~ 172:02/174~175/178/183/185/ 187/192~193/198N/202/208~209/ 211/213/217~218/221/229/234/ 239~240/243/245/251~252/259/ 261~262/270/273~275/284/286/ 288/306/308~309/318~321/326~ 327/334/339~341:02/344~346/ 348~350N/359~360/363/368:01~ 368:02/372/375~376/379/381/ 383~384/389~390/392/398~401/ 413~414/425/429/433~434/436/ 438/446/451N~452N/456/464~465/ 472~474/477/482/485~486/ 489:01~489:02/496/500/503/505/ 507N/510~511/516/519~520/524/ 529/532~533/539/541~542/544/ 548/551N/553/560/564~567/572/ 574~575:02/577/580/584/590/ 592~597/601/606/608~609/611~ 612/616/629~632Q/637/640~641/ 644/646/648/661/665~667:02/ 675N~676/679/684/686N/688~689/ 692/695:01:01~695:01:02/702N~ 704/707/715:01~717/719/722/ 729:01:01~730/733N/736:01:01~ 738/740~741/743N~745N/752N~ 754N/759/761/764~770N/772/779/ 783~785/789~791/798~799/801/ 807N/809~810/817~818/822/826/ 828~829/835~837/840N/842/853/ 862/867/871/874/880/883/885~ 886N/888~890/900/904~905		3	4				16								28									40												55											66		73									89							99
Cw7, C"Blank", C-																																																																				

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
Cw7	C*07:02:01:34							16																													55										66		73									89								99
Cw7, C-, C"Blank"	C*07:02:01:73/195/747N		3	4												28									40																																								
Cw7, C-, C"Blank"	C*07:02:03/02:20/02:34/02:49/ 02:61/02:102/67/107/121Q/149/ 154/158/220/232/333/409/483N/ 494Q/513Q/543/659:01:01~ 659:01:02/902		3	4				16								28									40												55										66		73									89								
Cw7, C-	C*07:02:06/02:46/02:65/02:109/ 171/233/285/287/373/388/397/ 439/504/605/680/700/710/865		3	4				16								28									40																						66		73									89								99
Cw7	C*07:02:128		3	4				16								28									40												55										66		73							85		89								99
Cw7, C-, C"Blank"	C*07:02:13/02:43/02:56/02:73/ 33N/102/194/271/316/322/325/ 351/449/628/724/792		3	4				16																	40												55										66		73									89								99
Cw7, C-	C*07:02:19/02:71/02:78/75/283/ 305		3	4				16								28																					55										66		73									89								99
Cw7, C-, C"Blank"	C*07:02:22/02:63/02:84/ 13:01:01~13:01:02/29:01:01~ 29:02/42/47/123/289~290/352/ 457/484N/497/775/854		3	4				16								28									40												55										66											89								99
Cw7, C-, C"Blank"	C*07:02:29/02:33/105/152N/244/ 416/763			4				16								28									40												55										66		73									89								99
Cw7	C*07:02:35		3	4				16								28									40												55										66		73		76							89								99
Cw7, C-	C*07:02:41/415/478/576/727			4				16								28																					55										66		73									89								99
Cw7, C-, C"Blank"	C*07:02:42/02:124/61N/291/382/ 391/423/518/773N/793/849N/851/ 866		3					16								28									40												55										66		73									89								99
Cw7, C-	C*07:02:45/02:94/05/27:01/ 31:02/157/226Q/258/396/432Q/ 530/538/556/558:01:01~ 558:01:02/582Q/681/697Q/709/ 711/830/899		3	4				16								28									40												55												73									89								99
Cw7, C-	C*07:02:48/02:111/02:121/25/ 114/241/312/342:01~342:02/573/ 861		3	4												28									40												55										66		73									89								99
Cw7, C-, C"Blank"	C*07:02:57/137:01~137:02/393N/ 405:01~405:02/495/645		3	4				16								28									40												55										66		73																	99
Cw7, C-, C"Blank"	C*07:02:88/136/264N/347N/509/ 525/625/678		3	4												28									40												55										66		73																	99
C-	C*07:03		3	4				16								28									40																		61				66		73									89								

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
Cw7, C-, C"Blank"	C*07:04:01:01~04:03/04:05~04:06/04:08~04:09/04:11/04:13/04:15~04:24/11/63/142/199:01/272/323~324/329N/354~355/378/394~395/420/501/534~535/562/585~586/622/626/674/693/742/751N/797N/831/852/858/876/881N/895~897/901		3	4				16								28									40												55			59														85									98	99
Cw7, C-	C*07:04:04/868		3	4				16								28									40												55			59														85										99
Cw7, C"Blank"	C*07:04:07/839N		3	4												28									40																													85										
Cw7, C-, C"Blank"	C*07:04:10/139/338/672N		3	4				16																	40												55			59														85									98	99
Cw7, C-, C"Blank"	C*07:04:12/336/600:01N~600:02N/651/698/780		3	4				16								28									40												55			59																						98	99
Cw7	C*07:04:14		3					16								28									40												55			59														85									98	99
Cw7, C-	C*07:04:25/365/466/664		3	4				16								28									40												55			59														85									98	
C-	C*07:07							16		18						28			31																		55		57											73								86		89								99
C-	C*07:08		3	4				16								28									40								51				55												73										89								99
C-	C*07:09							16		18						28			31																		55												73								86		89								99
C-	C*07:10		3	4				16								28									40							50					55										66		73										89								99
C-	C*07:101		3	4				16						26		28									40												55			59														85									98	99
C-	C*07:108:01~108:02		3					16		18						28									40								51				55												73										89								99
C-	C*07:115/377							16		18						28																					55												73										89								99
Cw7	C*07:12		3	4				16								28									40															59		61														85									98	99
C-	C*07:125/356		3	4				16								28									40												55								63		66		73										89								99
C-	C*07:133:01		3	4				16				21				28									40												55										66		73										89								99
C-	C*07:138		3	4				16								28	29								40												55										66		73				80														99
Cw7, C-	C*07:14/27:02		3	4				16								28									40	41											55												73										89								99
C-	C*07:140:01~140:02		3							18						28									40																	61							73															98	99
C-	C*07:141:01~141:03		3					16		18						28									40																	61							73										89								99
C-	C*07:148		3					16		18				26		28									40												55												73										89								99
C-	C*07:15		3	4				16								28									40												55										66		73										89			92					
C-	C*07:151		3					16		18						28									40												55												73															98	99
Cw7	C*07:16		3					16		18						28									40												55		57										73										89								99
C-	C*07:161		3	4				16						26		28									40												55										66		73										89								99
C-	C*07:17:01:01~17:04		3	4				16								28									40																	61					66		73										89								99
C-	C*07:176		3					16		18						28									40												55	56											73																		99
C-	C*07:177		3	4				16								28							36		40												55		57																				89		91						99
C-	C*07:181		3	4				16								28									40												55		57		59														85									98	99
C-	C*07:184		3	4				16								28									40							50					55																						89								99
C-	C*07:186		3	4				16								28									40												55										66	70	73										89								
C-	C*07:19/639		3					16		18						28									40												55										66		73										89								99
C-	C*07:196		3					16		18						28									40							50					55												73										89								99
C-	C*07:199:02		3	4				16								28									40	41											55			59														85									98	99
C-	C*07:207		3					16		18						28									40												55												73										89			92					
C-	C*07:210		3					16		18						28									40												55												73									88	89		91					99
C-	C*07:212		3					16		18						28									40												55											70	73										89								
C-	C*07:216		3	4				16			19					28									40												55										66		73																		99

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Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*07:22/847		3					16		18						28	29								40												55											73				80														99
C-	C*07:238		3	4				16								28									40												55										66		73									88	89		91					99
C-	C*07:242		3	4								21				28									40																		61				66	70	73										89								
C-	C*07:247		3					16		18						28									40												55												73									88	89								99
C-, C"Blank"	C*07:26:01:01~26:03/821N/845/870/894		3					16		18			25												40									52			55									64			73										89								99
C-	C*07:260:01~260:02		3	4				16								28									40												55				59						66		73										89								99
C-	C*07:265		3	4												28									40												55										66	70	73										89								
C-	C*07:28/857		3					16		18						28									40		42										55																						89								99
C-	C*07:294		3	4				16								28									40												55																						89								99
C-	C*07:304		3							18						28									40																		61						73										89								99
C-	C*07:307		3	4												28									40													56				60	61					66		73																	99
C-	C*07:31:01		3	4				16	17							28									40												55												73										89								99
C-	C*07:314:01/314:03		3	4				16					25												40									52			55									64	66		73										89								99
C-	C*07:314:02/578		3	4				16																	40												55										66		73	75									89								99
C-	C*07:315			4				16								28			31																		55												73								86		89								99
C-	C*07:317		3					16		18			25												40									52			55									64	66		73										89								99
C-	C*07:328			4				16								28			31																		55		57		59																85	86				91				98	99
C"Blank"	C*07:32N		3	4				16				21				28									40												55										66		73										89								
C-	C*07:330:01		3					16		18		21				28									40												55												73										89								99
C-	C*07:335		3					16								28									40												55										66		73										89		91						99
C-	C*07:357/480			4				16								28									40												55				59														85									98	99
C-	C*07:358/523		3	4												28									40												55				59														85										99
C-	C*07:361			4				16								28																					55				59														85									98	99
C-	C*07:364		3	4				16								28							36		40												55				59														85									98	99
C-	C*07:367		3	4				16								28									40							50					55		57								66		73										89								99
Cw7	C*07:37:01:02		3	4				16								28									40												55	56									66		73																	99
C-	C*07:374		3	4	5			16								28									40												55										66		73										89								99
C-	C*07:39		3	4				16								28									40												55										66		73										89		91						99
Cw7	C*07:40		3					16		18						28									40												55												73										89		91						99
C-	C*07:402		3	4	5	6		16																	40												55										66		73										89								99
C-	C*07:403		3	4				16								28									40												55				59														85		88							98	99
C-	C*07:406			4				16								28			31																		55				59														85	86								98	99
C-	C*07:41		3	4												28									40		42	43										56			59	60	61									76														99
C-	C*07:426/459		3	4				16								28																					55				59														85									98	99
C-	C*07:43:01~43:02		3	4				16								28									40							50					55												73										89								99
C-, C"Blank"	C*07:444/488/726N/776N		3							18						28									40																																									
C-	C*07:447		3	4												28									40																59		61										80			85									99
C-, Cw7	C*07:45/428/467		3	4				16								28									40												55																		85									98	99
C-	C*07:487/569/838		3	4												28									40												55				59														85									98	99
Cw7	C*07:49		3	4				16								28									40												55										66		73									88	89								99
Cw7	C*07:51		3	4				16								28									40												55		57								66		73										89								99
C-	C*07:512		3							18						28									40													56				60	61							73																	99
C-	C*07:514		3					16	17	18						28									40												55												73										89								99
C-	C*07:53		3					16		18	19					28									40												55												73																	99
C-	C*07:531		3					16		18						28									40												55								63				73										89								99
C-	C*07:552		3	4				16								28									40												55				59														85										99

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Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*07:559							16		18						28			31																		55												73									89							99
C-	C*07:563		3	4				16								28									40												55				59														85				91				98	99
C-	C*07:568		3					16		18						28									40							50	51				55												73									89							99
C-	C*07:583		3	4				16					25	26											40												55									64	66		73									89							99
C-	C*07:598			4				16								28			31																		55		57									66		73							86	89							99
C-	C*07:599		3	4												28									40																		61				66		73									89							99
C-	C*07:60		3					16		18						28									40												55												73					83				89							99
C-	C*07:64		3	4		6		16																	40												55										66		73									89							99
C-	C*07:655		3	4				16								28									40																59														85							98	99
C-	C*07:656			4				16								28			31																		55				59														85							98	99
C-	C*07:671		3							18						28									40																		61					70	73									89							
C-	C*07:68/302		3	4				16								28									40												55				59						66		73							85							98	99
C-	C*07:723		3	4				16					25												40												55		57									66		73									89							99
C-	C*07:725		3					16		18						28									40											54	55																					89							99
C-	C*07:748		3	4				16				21				28									40												55										66	70	73									89							
C-	C*07:755		3	4												28									40												55	56				60					66		73																99
C-	C*07:76:01			4				16								28			31																		55										66		73							86	89							99
C-	C*07:76:02			4				16								28			31																		55										66		73						85	86	89							99
C-	C*07:79		3	4				16								28									40												55										66		73					83				89							99
C-	C*07:812		3							18						28									40																		61						73				80											99
C-	C*07:850		3	4												28								38	40														56			60	61																			92			
C-	C*07:891		3	4				16					25												40												55									64	66		73									89							99
C-	C*07:892		3	4				16								28									40		42														59		61													85							98	99
C-	C*07:92		3					16		18			25												40												55									64			73									89							99
C-	C*07:96:01~96:02/756		3					16		18															40												55												73	75								89							99
Cw8, C-, C"Blank"	C*08:01:01:01~01:01:14/01:03~01:04/01:08~01:09/01:11~01:14/01:17/01:19/01:21~01:27/01:30~01:32/08:01~08:02/20/22:01:01~22:01:02/24/26N/36N/46/50/58/60/78~79/81/85~87/89N/91/95~96/99/102/105~106/109/122/127N~131/133/136/141Q/147~148/153~155/162/164/173N/175~176/178/186~187/189/193~194/196~197/199/204/208N/210/212/217/219~220		3	4									25	26							33				40		42												57		59		61									76							89		91					99
Cw8	C*08:01:02		3	4									25	26							33				40	41	42												57		59		61									76							89		91					99
Cw8, C-	C*08:01:05/01:29/56/72:01~72:02		3	4									25	26							33				40		42												57				61									76							89		91					99
Cw8	C*08:01:06~01:07/01:15		3	4									25	26							33				40		42												57		59		61																89		91					99
Cw8	C*08:01:10		3	4									25	26							33				40		42														59		61									76							89		91					99
Cw8, C-, C"Blank"	C*08:01:16/42/59/83/88N/97/145		3	4									25	26							33				40														57		59		61									76							89		91					99
Cw8, C-	C*08:01:18/39/65~66/135/177/203		3	4									25	26											40		42												57		59		61									76							89		91					99
Cw8, C-	C*08:01:20/119/192		3	4										26							33				40		42												57		59		61									76							89		91					99
Cw8, C-	C*08:01:28/84/124/157/190		3	4									25	26							33				40		42												57		59											76							89		91					99

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Reaction Results (mark positive locations)																																																																				
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
Cw8, C-, C"Blank"	C*08:02:01:01~02:02/02:05~02:06/02:08/02:10~02:15/02:17~02:21/02:24~02:29/02:31/32/43/52N~53/62:01~62:02/67~71/74~75/90/110/114/134/140/150~151/156/159/161N/170/172/179/181N/184/198/200~202/206/211/214N~215/218			3 4									25 26											40		42 43											56 57		59 60 61									76									91					99
Cw8	C*08:02:03			4									25 26											40		42 43											56 57		59 60 61									76															99
Cw8, C-	C*08:02:04/02:07/02:16/92/123/125/158			3 4									25 26											40		42 43											56 57		59 60 61																		91					99
Cw8, C-	C*08:02:09/48/108/112/191/207			3 4									25 26											40			43										56 57		59 60 61									76									91					99
Cw8	C*08:02:22			3 4										26										40		42 43											56 57		59 60 61									76									91					99
Cw8	C*08:02:23			3 4									25 26											40	41	42 43											56 57		59 60 61									76									91					99
Cw8	C*08:02:30			4									25 26											40		42 43											56 57		59 60 61									76									91					99
Cw8, C-	C*08:03:01:01~03:02/40/117/144:02/174			3 4									25 26								33				40		42											57				61									76				84				89		91					99
Cw8, C-	C*08:03:03/06			3 4									25 26								33				40		42											57				61									76				84				89		91					
Cw8, C-	C*08:03:04/144:01			3 4									25 26								33				40	41	42											57				61									76				84				89		91					99
Cw8, C-	C*08:04:01:01~04:01:02/04:03/93/139/213			3 4									25 26											40		42 43											57		59		61									76								89		91					99
Cw8, C-	C*08:04:02/49			3 4									25 26											40		42 43												57		59		61									76									91					99
C-	C*08:05/73			3 4									25 26											40		42 43											56 57		59 60 61									76															99
C-	C*08:07			3 4									25 26											40		42 43										55	56 57		59 60									76									91					99
C-	C*08:09			3 4									25 26								33				40													57				61							73	76								89		91					99
C-	C*08:10			4									25 26						31		33						42											57		59		61								76	78					86		89		91					99
C-	C*08:100			3 4									25 26											40		42 43											56 57		59 60 61									76									91					
C-	C*08:101			3 4									25 26								33				40		42						51					57				61									76				84				89		91					99
C-	C*08:103			3 4									25 26											40		42 43								52			56 57		59 60 61									76									91					99
C-	C*08:104			3 4									25 26											40		42 43										55		57		59									76								89		91					99
C-	C*08:11			3 4									25 26								33				40													57		59		61							73	76								89		91					99
C-	C*08:111/120/146			3 4									25 26														42 43											56 57		59 60 61									76									91					99
C-	C*08:113			3 4									25 26											40			43											57		59		61																89		91					99
C-	C*08:115			3 4									25 26											40		42 43											56 57		59 60 61						70			76										91					
C-	C*08:118			3 4									25 26											40		42											56 57		59		61									76									91					99
C-	C*08:12:01:01~12:01:02			3 4					17				25 26											40		42 43											56 57		59 60 61									76									91		93			99
C"Blank"	C*08:121N			3									25 26								33				40		42											57		59		61									76								89		91					99
C-	C*08:126			3 4									25 26											40		42 43											56 57		59 60 61									76									91		93			99
C-	C*08:13			3 4									25											40		42 43												57		59		61									76								89		91					99
C-	C*08:137			3 4									25 26								33				40		42													59		61				64				76								89							99
C-	C*08:138			3 4									25 26												40		42											57		59		61						70		76								89		91					
C-	C*08:14			3 4									25 26								33				40		42							52				57				61								76				84				89		91					99
C-	C*08:142			3 4									25 26											40		42 43											57		59		61									76									91			98	99
C-	C*08:143			3 4									25 26								33				40		42						51					57		59		61									76								89		91					99
C-	C*08:149			3 4				16					25 26											40		42 43											56 57		59		61									76									91					99
C-	C*08:15:01~15:02/23/51/132/167			3 4									25 26											40		42 43											56 57			60 61									76									91					99
C-	C*08:152			3 4									25 26											40			43											56 57		59 60 61								73										91					99

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*08:16:01~16:02		3	4									25								33				40		42											57		59		61							76							89		91					99
C-	C*08:160		3	4									25	26											40		42											57				61									80									91					99
C-	C*08:163		3	4		6								26							33				40		42											57		59		61							76							89		91					99
C-	C*08:168		3	4									25	26											40		42	43													59		61				64			76							89		91					99
C-	C*08:17/116		3										25	26											40		42	43										56	57		59	60	61							76									91					99
C-, C"Blank"	C*08:18/55N/94		3	4									25												40		42	43										56	57		59	60	61							76									91					99
C-	C*08:182		3	4									25	26											40		42	43											57		59		61					70		76							89		91					
C-	C*08:183		3	4		6								26											40		42	43										56	57		59	60	61							76									91					99
C-	C*08:185		3	4									25	26										38	40		42	43										56	57		59	60	61							76									91	92				
C-	C*08:188		3	4				16					25	26											40		42	43								55		57		59										76							89		91					99
Cw8	C*08:19:01~19:02		3	4									25	26											40		42	43					51					56	57		59	60	61							76									91					99
C-	C*08:195																										42	43										56			59	60	61							76														99
C-	C*08:205		3	4									25	26							33				40														57				61												84			89		91					99
C-	C*08:209		3	4									25	26							33				40							50							57		59		61							76							89		91					99
C-	C*08:21		3	4									25	26							33				40		42												57		59		61							76							89							99
C-	C*08:25		3	4									25												40		42	43										56	57		59	60	61							76														99
C-	C*08:27		3	4									25	26											40		42												57		59		61							76		80							91					99
C-	C*08:28		3	4									25	26											40		42	43										56			59	60	61				64			76									91					99
C-	C*08:29		3	4									25	26											40		42	43											57		59		61							76		80							91					99
C-	C*08:30/63/77		3	4									25	26											40		42	43										56	57		59		61							76									91					99
C-	C*08:31		3	4									25	26										38	40		42	43											57		59		61							76		80							91	92				
C-	C*08:33:01~33:02/33:04		3	4									25	26											40		42											56	57		59	60	61															91					99
C-	C*08:33:03/107		3	4									25	26											40		42											56	57		59	60	61							76									91					99
C-, C"Blank"	C*08:34/171/180N		3	4									25	26											40														57																					91					
C-	C*08:35		3	4									25	26											40		42											56	57			60	61							76									91					99
C-	C*08:37		3	4										26		28									40		42	43										56	57		59	60	61							76									91					99
C-	C*08:38		3	4									25	26							33				40		42												57				61				66			76					84			89		91					99
C-	C*08:41		3	4									25	26							33				40		42												57		59		61					70		76							89		91					
C-	C*08:44/82		3	4									25	26							33				40		42					50							57		59		61							76							89		91					99
C-	C*08:45/166		3	4									25	26											40		42	43										56			59	60	61							76									91					99
C-	C*08:47		3	4				16					25	26											40		42	43								55	56	57		59										76									91					99
C-	C*08:54/165		3	4									25	26											40		42											57				61							76				84			89		91					99
C-	C*08:57		3	4				16					25	26											40		42	43											57		59		61							76							89		91					99
C-	C*08:61		3	4									25	26							33				40		42					50							57				61							76				84			89		91					99
C-	C*08:76/169/216		3	4									25	26											40		42	43										56	57		59	60										76									91					99
C-	C*08:80		3	4									25	26							33				40		42							52					57		59		61							76							89		91					99
C-	C*08:98		3	4									25	26											40		42												57		59		61							76									91					99

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C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
	Cut Off Value	15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-, C"Blank"	C*12:02:01~02:02:12/02:04~02:05/02:09~02:10/02:13~02:14/02:16/02:18~02:21/02:26~02:39/30/36/40/56/64/67~68/74/80N/84N/86/96/103/112/114/123~124/126/128/130/136/155Q/166/179/193/196/200/204/207/212/224/226/228/231/234/236N/239~241/243/250/255/261/263/275/280~281/285/294/303~304/307/315/327N/329N		3	4									25												40	41													57				61						73				80												99
C-	C*12:02:03/03:32/162/168/177/183/221/296		3	4									25												40														57				61						73				80												99
C-	C*12:02:06		3	4									25												40	41													57				61						73				80										94		99
C-	C*12:02:07		3	4									25												40	41													57				61						73		76		80												99
C-	C*12:02:08/02:12/03:29/03:47/11/99:02/238/251/258/320		3	4									25												40														57				61						73				80										94		99
C-	C*12:02:11		3	4									25												40	41													57				61						73				80			85									99
C-	C*12:02:15/02:25/298		3	4									25												40	41													57				61										80												99
C-	C*12:02:17		3	4																					40	41													57				61						73	75			80												99
C-	C*12:02:22/142		3	4																					40	41													57				61						73				80												99
C-	C*12:02:23/27			4									25													41													57				61						73				80												99
C-	C*12:02:24/22/73/308		3	4									25												40	41																	61						73				80												99
C-, C"Blank"	C*12:03:01:01~03:01:03/03:01:05~03:01:39/03:03~03:04/03:06~03:07/03:10/03:12/03:14/03:17~03:18/03:22/03:24~03:25/03:27~03:28/03:31/03:33/03:35~03:39/03:41~03:46/03:49~03:51/03:53~03:54/03:56/03:58~03:60/03:62~03:65/06/12/23/25/29/32/34~35/37/39N/43/45/47/50/52~53/57:01~57:02/62~63/65~66/70~71/75/78~79/87~89/91~93/95/97/99:01/100~101/107~111/116/121/125/131/133/138/140:01/143/149/152/157/159~160/163/165/167/170~174/180/182/184/186~187/189~190/192/197/199/201/205~206/209~211/216/218/220/223/225/229/237/242/244~245/248~249/253~254/256~257/260:01~260:02/262/265/267/271/273~274:01N/276~278/283~284/288~292/295N/297/300/302/305~306/312/316~319/321~324N/330N/332		3	4					17				25												40														57				61						73				80										94		99

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Reaction Results (mark positive locations)																																																																				
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-, C"Blank"	C*12:03:01:04/134/270N/313/331		3	4									25												40														57																												
C-, C"Blank"	C*12:03:02/03:08/03:16/03:19~03:20/03:30/03:34:01~03:34:02/03:52/13:01:01~13:01:02/26/46N/59/76/264/272		3	4					17				25												40														57				61						73				80														99
C-	C*12:03:05/82/115/215/310		3	4					17																40														57				61						73				80											94		99
C-	C*12:03:09/03:26		3	4					17				25												40														57				61						73				80			85								94		99
C-	C*12:03:11		3	4					17				25					30							40														57				61						73															94		99
C-	C*12:03:13/07/129/246			4					17				25												40														57				61						73				80											94		99
C-, C"Blank"	C*12:03:15/03:55/90/301/311N		3						17				25												40														57				61						73				80											94		99
C-, C"Blank"	C*12:03:21/03:48/42Q/139Q/158/232N/266/286/293		3	4					17				25												40														57				61						73				80											94		
C-	C*12:03:23/140:02		3	4					17																40														57				61						73	75			80											94		99
C-	C*12:03:40/03:61/38/48/51/61/94/102/120/191/213		3	4					17				25												40														57										73				80											94		99
C-	C*12:03:57/77/113/282		3	4					17				25												40														57				61										80											94		99
C-	C*12:03:66/141/202/235/259		3	4					17				25												40														57				61										80														99
C-	C*12:04:01			4					17				25						31																				57				61						73				80				86										99
C-	C*12:04:02:01~04:02:02			4					17				25						31																				57				61						73				80				86							94		99
C-	C*12:05:01			4					17				25						31																				57				61						73				80				86				91			94		99
C-	C*12:05:02			4					17				25						31																				57				61						73				80				86				91					99
C-	C*12:08		3							18			25												40	41													57				61						73				80														99
C-	C*12:09			4					17				25						31																		56		57			60	61						73								86				91					99
C-	C*12:10:01~10:02		3	4									25												40								51						57				61						73				80														99
C"Blank", C-	C*12:104N~105N/214/219N		3	4									25												40	41													57										73				80														99
C-	C*12:106		3	4									25												40	41													57				61					70	73				80														
C-	C*12:117/137/268		3	4									25												40	41													57				61						73																	99
C-	C*12:118		3	4									25												40														57				61				66		73				80											94		99
C-	C*12:119		3	4					17				25											38	40														57				61						73				80								92			94		
C-	C*12:122		3	4					17				25												40														57				61					70	73				80											94		
C-	C*12:127		3	4									25	26											40	41													57				61						73				80														99
C-	C*12:132		3	4									25												40	41																	61			64			73				80														99
C-	C*12:135			4					17				25						31																								61			64			73				80											94		99
C-	C*12:14:01~14:02		3	4				16					25												40	41											55		57										73										89								99
C-	C*12:144		3	4					17				25												40		42	43											57				61								76		80										93			99
C-, C"Blank"	C*12:145/148N/247		3										25												40	41													57				61						73				80														99
C-	C*12:146			4									25						31							41																	61			64			73				80				86									99
C-	C*12:147/195:01~195:02		3	4					17							28									40														57				61						73				80											94		99
C-	C*12:15		3	4					17				25												40											54			57				61										80														99
C-	C*12:150/230		3	4					17				25																										57				61						73				80								94		99
C-	C*12:151		3	4									25												40	41													57				61						73				80														
C-	C*12:153		3	4					17				25												40														57				61						73													94		99
C-	C*12:154			4					17				25						31																				57				61						73				80											94		99
C-	C*12:156		3	4									25												40														57				61	62					73				80											94		99
C-	C*12:16:01~16:02/217		3	4												28									40	41													57				61						73				80														99
C-	C*12:169		3	4									25								33				40	41													57				61						73										89								99
C-	C*12:17/164			4									25												40	41													57				61						73				80														99

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*12:176		3	4				16	17				25				29								40												55		57										73				80											94		99
C-	C*12:178		3	4									25										36		40														57				61						73				80											94		99
C-	C*12:18:01~18:02		3	4									25												40	41													57				61						73									89							99
C-	C*12:181		3	4				16					25												40												55		57										73									89							99
C-	C*12:185		3	4					17				25												40			43											57				61						73		76		80													99
C-	C*12:188		3							18			25												40	41													57				61						73				80					88			91					99
C-	C*12:19		3	4					17				25												40														57				61						73											90						99
C-	C*12:194		3	4					17				25												40														57				61			63			73				80											94		99
C-	C*12:195:03		3	4					17							28									40														57				61						73				80													99
C-	C*12:198		3	4									25											38	40	41													57				61						73				80								92					
C-	C*12:20/175		3	4					17				25												40														57				61						73									89						94		99
C-	C*12:203		3	4					17				25	26											40														57				61						73				80											94		99
C-	C*12:208		3	4									25												40											54			57				61										80													99
C-	C*12:21			4									25	26					31																				57				61						73			78	80				86			91			94		99
C-	C*12:222/328		3	4									25												40														57				61										80													99
C-	C*12:227		3	4					17				25												40									52					57				61						73				80											94		99
C-	C*12:233		3	4									25												40		42						51					56	57		60	61																								99
C-	C*12:24		3	4					17				25												40												56	57		60	61									73													94		99
C-	C*12:252		3	4									25												40	41																61						73				80	83												99
C-	C*12:279		3	4									25												40	41							52						57				61						73				80													99
C-	C*12:28/325		3	4					17				25												40																		61			64			73				80											94		99
C-	C*12:287		3							18			25												40	41																	61			64			73				80													99
C-	C*12:309		3	4									25												40							50							57				61										80													99
C-	C*12:31:01~31:02		3	4					17				25												40		42												57				61										80										93			99
C-	C*12:314/326		3	4					17				25												40																		61						73				80											94		99
C-	C*12:33			4					17				25	26					31																				57				61						73			78	80				86			91					99
C-	C*12:333		3	4				16	17				25				29								40														57				61						73				80											94		99
C-	C*12:41			4									25						31							41													57				61						73				80				86									99
C-	C*12:44		3	4									25												40							50							57				61						73				80													99
C-	C*12:49		3	4									25												40	41													57				61						73				80								91					99
C-	C*12:54		3	4					17				25												40														57				61						73				80					88						94		99
C-	C*12:55/269		3	4		6			17																40														57				61						73				80											94		99
C-	C*12:58		3	4					17				25												40																		61						73				80	83										94		99
C-	C*12:60			4									25						31																				57				61						73				80				86							94		99
C-	C*12:69/161		3	4									25													41													57				61						73				80													99
C-	C*12:72			4									25						31							41													57				61						73				80													99
C-	C*12:81		3						17	18			25												40														57				61						73				80											94		99
C-	C*12:83		3	4									25												40	41													57				61					70	73										89							
C-	C*12:85		3	4									25												40	41												56	57		60	61									73															99
C-	C*12:98		3	4					17				25												40														57				61						73				80								91			94		99

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C Locus

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Reaction Results (mark positive locations)																																																																				
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-, C"Blank"	C*14:02:01:01~02:07/02:09~02:11/02:15~02:19/02:21~02:27/02:29~02:31/02:33~02:37/07N~08/11/14/18~19/21N/23~24:02/27/30~32/36~37/39/44/47:01N~47:02N/50~52/57/59~60/65~69/74~76/80~82/84~85/88~89/94~95/97N~106/109/111/114~115/117N/121~125		3	4		6																			40													56	57			60	61	62					73												91					99
C-	C*14:02:08		3	4		6																			40													56	57			60	61	62					73												91				94		99
C-	C*14:02:12/119		3	4		6																			40													56	57			60	61	62					73												91						
C-	C*14:02:13/62		3			6																			40													56	57			60	61	62					73												91						99
C-, C"Blank"	C*14:02:14/29/40/43/48/83/93N/120		3	4		6																			40													56	57			60		62					73												91						99
C-	C*14:02:20/13/46:01		3	4		6																			40													56				60	61	62					73												91						99
C-	C*14:02:28/26/55		3	4		6																			40													56	57			60	61	62																91						99
C-	C*14:02:32/63		3	4		6																			40														57				61	62					73												91						99
C-	C*14:03:01:01~03:05/22/61/86/112~113/118/126		3	4		6																			40					48								56	57			60	61	62					73												91						99
C-	C*14:04		3	4		6																			40													56	57			60	61	62					73									88									99
C-	C*14:05		3	4		6			17																40													56	57			60	61						73												91						99
C-	C*14:06		3	4		6																			40														57				61	62					73										89		91						99
C-	C*14:09		3	4		6																			40	41												56	57			60	61						73												91						99
C-	C*14:10		3	4		6																			40					48								56				60	61	62					73					83							91						99
C-	C*14:110		3	4									25												40													56	57			60	61	62					73												91						99
C-	C*14:116		3	4		6																			40					48								56				60	61	62					73												91						99
C-	C*14:12/108			4		6													31																			56	57			60	61	62					73								86				91						99
C-	C*14:15		3	4		6		16																	40														57				61	62					73										89		91						99
C-	C*14:16		3	4		6																			40														57				61	62					73				80								91						99
C-	C*14:17		3	4		6		16																	40												55	56	57					62					73												91						99
C-	C*14:20		3	4		6																			40													56	57			60	61	62				70	73												91						
C-	C*14:25		3	4		6																		38	40													56	57			60	61	62					73												91	92					
C-	C*14:28:01		3	4		6																			40													56	57			60	61						73												91						99
C-	C*14:28:02		3	4		6																			40								51					56	57			60	61						73												91						99
C-	C*14:33~34/58/70/78/96		3	4																					40													56	57			60	61	62					73												91						99
C"Blank"	C*14:35N		3	4		6																			40					48								56	57			60	61						73												91						99
C-	C*14:38		3	4		6																			40					48								56	57			60	61	62					73												91						
C-	C*14:41		3	4																					40					48								56	57			60	61	62					73												91						99
C-	C*14:42		3	4		6																																56	57			60	61	62					73												91						99
C-	C*14:45		3	4		6																	36		40													56	57			60	61						73												91						99
C-	C*14:46:02		3	4		6																			40													56				60	61	62					73					83							91						99
C-	C*14:49			4		6													31																			56				60	61	62					73								86										99
C-	C*14:53		3	4		6																			40					48									57				61	62					73										89		91						99
C-	C*14:54		3	4		6																			40					48		50						56	57			60	61																		91						99
C-	C*14:56			4		6																																56	57			60	61	62					73												91						99
C-	C*14:64		3	4		6																			40													56				60	61	62					73									88									99
C-	C*14:71		3	4		6									27										40													56	57				61	62					73												91						99

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Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*14:72			4		6																			40													56	57			60	61	62					73																	99
C-	C*14:73		3			6				18															40													56	57			60	61	62					73																	99
C-	C*14:77		3	4		6																			40														57				61	62					73								88	89								99
C-	C*14:79		3	4		6																			40					48								56	57			60	61	62															91							99
C-	C*14:87		3	4		6															33				40														57				61	62					73									89		91						99
C-	C*14:90		3	4		6					19														40					48									57				61	62					73											91						99
C-	C*14:91/107		3	4		6																			40													56	57				61	62					73											91						99
C-	C*14:92		3	4		6																			40													56	57			60	61																		91						99
C-, C"Blank"	C*15:02:01:01~02:08/02:10~ 02:11/02:13~02:17/02:19~02:20/ 02:22/02:24/02:27~02:31/ 02:33:01~02:33:02/02:35/02:37/ 02:39~02:43/02:45~02:46/10:02~ 10:03/13:01:01~13:01:02/18/26/ 28/33~35/38~39/44:01~44:02/47/ 50/52:01~53/56~57/68/73/81~82/ 86~89/91/93~95N/97~99/101/106/ 109/113~114/119~120/122N/131~ 132/134~137/139/141/145N~146/ 150~151/154~157/160N~161/163/ 168/171/175~176/179/182/186~ 189N/191/193/196~200/202~203/ 205/207/209/212~213N/215~217/ 219~221/223/227~228/230									18									31													50				54			57				61								75							86		89		91					99
C-, C"Blank"	C*15:02:09/02:18/05:01:01~ 05:04/05:06~05:07/05:10/05:13~ 05:14/05:16~06:03/09:01:01~ 09:02/19/24/29/40/49/54/59/64/ 66/69/90/105Q/108/110/115N/ 117/126/128~129/142/147/ 152:01~153/164N~165/177N/180/ 185N/194/204/222									18									31													50							57				61								75							86		89		91					99
C-	C*15:02:12/02:32/02:38/79/226									18									31													50				54			57												75							86		89		91					99
C-	C*15:02:21/162/206									18									31													50				54			57				61															86		89		91					99
C-, C"Blank"	C*15:02:23/02:36/41/72/92N/ 121/123/133/149/166/170/174									18									31																	54			57				61								75							86		89		91					99
C-	C*15:02:25/10:01/10:04									18			25						31													50				54			57				61															86		89		91					99
C-	C*15:02:26/02:34/62/173									18									31													50				54							61								75							86		89		91					99
C-	C*15:02:44/51/80									18									31													50				54			57				61								75							86				91					99
C-	C*15:03/83/112/184									18									31													50				54			57				61								75							86		89							99
C-	C*15:04:01:01~04:05/30/211									18									31													50							57				61							73	75							86		89		91					99
C-	C*15:05:05/167									18									31													50							57				61								75							86				91					99
C-	C*15:05:09/61/104									18									31													50							57				61															86		89		91					99
C-	C*15:05:11~05:12									18																						50							57				61								75									89		91					99
C-	C*15:05:15/208									18			25						31													50							57				61															86		89		91					99
C-	C*15:07:01:01~07:01:02		3							18															40							50				54			57				61								75									89		91					99
C-	C*15:08:01~08:02									18									31													50				54		56	57			60	61								75							86				91					99

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*15:100									18									31													50				54			57				61		63					75							86		89		91					99
C-	C*15:102									18									31				36															56	57			60	61							75							86				91					99
C-	C*15:107									18			25	26					31													50							57				61									78					86		89		91					99
C-	C*15:11			4															31										45			50				54			57				61							75							86		89		91					99
C-	C*15:111/201									18									31					38								50							57				61							75							86		89		91	92				
C-	C*15:116									18									31													50							57				61							75									89		91					99
C-	C*15:118									18									31										45			50				54			57				61							75							86		89		91					99
C-	C*15:12									18									31													50				54							61							75				83			86		89		91					99
C-	C*15:124																		31													50				54			57				61							75							86		89							99
C-	C*15:130									18									31													50				54			57		59		61							75							86		89		91					99
C-	C*15:143/148									18									31													50						56	57			60	61							75							86				91					99
C-	C*15:144		3							18															40							50				54							61							75				83					89		91					99
C-	C*15:15/195									18									31													50				54			57				61					70		75							86		89		91					
C-	C*15:16			4															31													50				54			57				61							75							86		89							99
C-	C*15:169									18									31													50											61							75							86		89		91					99
C-	C*15:17			4															31													50				54			57				61							75							86		89		91					99
C-	C*15:172									18									31													50				54			57				61				66			75							86		89		91					99
C-	C*15:178									18				26					31													50				54			57				61							75		78					86		89		91					99
C-	C*15:181		3							18															40							50							57				61							75								88	89		91					99
C-	C*15:190									18									31																				57				61						73	75							86		89		91					99
C-	C*15:21									18									31													50				54			57				61							75									89		91					99
C-	C*15:214									18									31													50							57				61							75			80				86				91					99
C-	C*15:218									18		21							31													50							57				61							75							86		89		91					99
C-	C*15:22/70/140									18									31																				57				61							75							86		89		91					99
C-	C*15:224									18									31													50							57											75							86		89		91					99
C-	C*15:225									18									31																				57											75							86				91					
C-	C*15:229									18									31													50							57		59		61							75							86		89		91					99
C-	C*15:23:01~23:02/158									18						28			31													50							57				61													86		89		91					99
C-	C*15:25		3	4																					40		42					50											61							75													98	99
C-	C*15:27			4															31													50							57				61							75							86		89		91					99
C-	C*15:31							16		18									31													50				54			57				61							75							86		89		91					99
C-	C*15:32Q/84Q/96Q/103/127/159/183									18									31													50				54			57				61							75							86		89		91					
C-	C*15:36					6				18									31											48		50							57				61													86		89		91					99
C-	C*15:37									18									31				36													54			57				61							75							86		89		91					99
C-	C*15:42									18									31					38								50				54			57				61							75							86		89		91	92				
C-	C*15:43		3	4																					40							50				54			57				61							75									89		91					99
C-	C*15:45/67/210									18									31													50				54			57				61							75									89								
C-	C*15:46									18									31													50							57				61				66			75							86		89		91					99
C-	C*15:48/192																		31													50				54			57				61							75							86		89		91					99
C-	C*15:55/125								17	18									31																				57				61							75							86		89		91					99
C-	C*15:58								17	18									31																	54			57				61							75							86		89		91					99
C-	C*15:60/71									18																						50				54			57				61							75									89		91					99
C-	C*15:63/138									18						28			31													50				54			57				61													86		89		91					99
C-	C*15:65							16		18									31																		55		57										73	75							86		89		91					99
C-	C*15:74									18									31													50				54			57				61							75			80				86				91					99
C-	C*15:75							16		18	19								31													50				54			57				61							75							86				91					99

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Name _____ Sample ID _____

C Locus

Reaction Results (mark positive locations)

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*15:76									18									31								42					50							57				61							75							86		89		91					99
C-	C*15:77									18									31													50							57				61					70	73	75							86		89		91					
C-	C*15:78:01~78:02									18									31													50	51			54			57				61							75							86		89		91					99
C-	C*15:85		3							18															40							50				54			57				61							75								88	89		91					99
C-, C"Blank"	C*16:01:01:01~01:04/01:06/ 01:10~01:15/01:19~01:25/01:28~ 01:37/01:39~01:40/08/11/13~14/ 17/28/30N/32/38~39:02/41/44/ 49/51~52/56/58~59/71/76/79/81/ 83/92/96~98/100/105/111~112/ 114/118~119/122/125~128/131/ 134~135/137~138/141~142/146/ 148/151~152/154/157~162/164~ 165/168/170~173/175/177~178		3	4				16	17		19		25											40														57				61						73												91					99
C-	C*16:01:05/01:18/07:02		3	4				16			19		25												40														57				61						73												91					99
C-	C*16:01:07		3	4				16	17		19		25												40																		61						73												91					99
C-	C*16:01:08/65/73/86/116/130/ 147		3	4				16	17		19														40														57				61						73												91					99
C-	C*16:01:09/95		3					16	17		19		25												40														57				61						73												91					99
C-	C*16:01:16		3	4				16	17		19		25												40														57				61						73							85					91					99
C-	C*16:01:17		3	4				16	17		19		25												40														57				61						73												91			94		99
C-	C*16:01:26/02:15/02:18/94			4				16	17		19		25																										57				61						73												91					99
C-	C*16:01:27/16Q/31/54/174Q		3	4				16	17		19		25												40														57				61						73												91					
C-	C*16:01:38/36		3	4				16	17		19		25												40														57										73												91					99
C-, C"Blank"	C*16:02:01:01~02:03/02:06~ 02:07/02:09~02:14/02:16~02:17/ 09/12/47/60/63/74/77N/84/89N~ 90/99/101~102/107~108/120/133/ 143/145/155~156/163/166~167/ 176/179			4				16	17		19		25						31																				57				61						73							86				91					99
C-	C*16:02:04			4									25						31																				57																	86				91					
C-	C*16:02:05			4				16	17		19		25						31																				57				61						73		76					86				91					99
C-	C*16:02:08/144			4				16	17		19								31																				57				61						73							86				91					99
C-	C*16:04:01:01~04:03/42/61/66		3	4				16	17				25				29								40														57				61						73				80						91					99
C-	C*16:04:04		3	4				16	17				25				29								40																		61						73				80						91					99
C-	C*16:04:05/124		3	4				16					25				29								40														57				61						73				80						91					99
C-	C*16:06		3	4				16			19		25												40														57				61				66		73										91					99
C-	C*16:07:01		3	4				16			19		25												40	41													57				61						73										91					99
C-	C*16:10/20/67/75/169		3	4				16	17		19		25												40														57				61																91					99
C-	C*16:103/140			4				16	17				25						31																				57				61						73							86				91					99
C-	C*16:104			4				16			19		25						31																				57				61	62					73							86				91					99
C-	C*16:106			4				16	17		19		25												40														57				61						73												91					99
C-, C"Blank"	C*16:115/132N/136			4				16			19		25						31																				57				61						73							86				91					99
C-	C*16:117		3	4				16			19		25												40								51						57				61						73												91					99
C-	C*16:121			4				16	17		19								31										45										57				61						73	75						86				91					99
C"Blank"	C*16:123N							16	17		19		25						31																				57				61						73							86				91					99
C-	C*16:129		3	4				16	17		19		25																										57				61						73										91					99

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C Locus

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Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*16:139		3	4				16	17		19		25	26										40														57				61						73										91					99
C-	C*16:149		3	4				16	17				25				29							40														57				61					70	73				80						91					
C-	C*16:15:01		3	4				16	17		19		25											40														57				61						73															99
C-	C*16:15:02		3	4				16	17		19		25											40														57				61						73													94		99
C-	C*16:150		3	4		6		16	17								29							40														57				61						73				80						91					99
C-	C*16:153			4					17				25						31																				57				61														86			91					99
C-	C*16:18		3	4				16			19		25										36		40														57				61						73										91					99
C-	C*16:19			4					17		19		25						31																				57				61						73								86			91					99
C-	C*16:21/80		3	4				16	17		19					28								40														57				61						73										91					99
C-	C*16:22/24/43/72/113		3	4					17		19		25											40														57				61						73										91					99
C-	C*16:23		3	4				16			19		25											40														57				61	62					73										91					99
C-	C*16:25/69			4				16	17		19		25						31																				57				61						73								86								99
C-	C*16:26		3	4				16	17		19		25											40																			61			64			73										91					99
C-	C*16:27		3	4				16	17		19		25											40			43											57				61						73										91					99
C-	C*16:29		3	4				16	17				25				29							40														57				61						73				80						91	92				
C-	C*16:33		3	4				16	17				25				29							40														57				61						73				80						91					
C-	C*16:34		3	4				16	17		19													40				45										57				61						73	75									91					99
C-	C*16:35		3	4				16	17				25											40														57				61						73									89	91					99
C-	C*16:37			4				16	17		19		25						31																				57				61						73										91					99
C-	C*16:40/110		3	4					17				25											40														57				61						73									89	91					99
C-	C*16:45		3	4				16	17		19		25											40		42												57				61																91		93			99
C-	C*16:46			4				16	17		19		25						31																								61			64			73								86			91					99
C-	C*16:48			4				16	17				25						31																				57				61						73								86		89	91					99
C-	C*16:50		3	4				16	17		19		25											40														57				61						73										91	92				
C-	C*16:53		3	4					17				25											40													56	57			60	61						73										91					99
C-	C*16:55		3	4				16	17				25				29							40																		61			64			73				80						91					99
C-	C*16:57		3	4				16	17		19		25											40														57				61						73									88	91					99
C-	C*16:62		3	4				16	17		19		25											40														57				61		63				73										91					99
C-	C*16:64		3					16	17	18	19		25											40																		61			64			73															99
C-	C*16:68		3	4				16	17				25											40													56	57				61						73										91					99
C-	C*16:70							16	17	18	19								31																				57				61						73	75							86			91					99
C-	C*16:78		3	4					17				25				29							40														57				61						73				80						91					99
C-	C*16:82/109		3	4				16	17				25				29							40														57				61										80						91					99
C-	C*16:85							16	17		19																											57				61						73															99
C-	C*16:87		3					16	17	18	19		25											40														57				61						73										91					99
C-	C*16:88			4				16	17				25						31																		56	57				61						73								86			91					99
C-	C*16:91			4				16	17				25				29		31																				57				61						73				80				86			91					99
C-	C*16:93		3	4				16	17				25											40															57				61						73										91					99
C-	C*17:01:01:02~01:13/01:15/02~ 03:01:05/03:03~04/09~10/12~ 16:02/18~19/24/28~31/37~39/41/ 43~47/49~51:02/53~57			4									25						31					38			42								53		55		57																86		89			92				
C-	C*17:01:14/08			4									25						31					38											53		55		57																86		89			92				
C-	C*17:01:16			4									25						31					38			42								53		55																			86		89			92				
C-	C*17:03:02			4															31					38			42								53		55		57																86		89			92				
C-	C*17:05			4									25	26					31					38			42								53		55		57														78		86		89			92				
C-	C*17:06			4									25						31					38			42										55		57																86		89			92				

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LABType™ SSO Class I C Locus Typing Test, Lot #015

Name _____ Sample ID _____

C Locus

Serology Equivalent	C Locus Allele Group	002	003	004	005	006	013	016	017	018	019	021	025	026	027	028	029	030	031	032	033	035	036	038	040	041	042	043	045	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	066	070	073	075	076	078	080	083	084	085	086	088	089	090	091	092	093	094	098	099
Reaction Results (mark positive locations)																																																																					
Cut Off Value		15%	15%	23%	15%	20%	100%	10%	25%	20%	25%	35%	15%	20%	21%	20%	23%	15%	30%	100%	15%	2%	25%	40%	15%	30%	18%	20%	15%	15%	15%	33%	12%	15%	22%	15%	15%	25%	20%	15%	50%	24%	17%	30%	18%	15%	20%	35%	23%	15%	30%	30%	35%	25%	34%	15%	30%	15%	20%	15%	35%	50%	17%	20%	25%	15%
C-	C*17:07			4									25						31								42								53		55		57									70									86		89							
C-	C*17:11			4									25						31					38			42								53		55										64									86		89			92				
C-	C*17:17			4									25						31								42								53		55	56	57			60															86									99
C-	C*17:20			4												28			31					38			42								53		55		57																		86		89			92				
C-	C*17:21			4					17				25						31					38			42								53		55		57																		86		89			92	93			
C-	C*17:22		3	4									25											38	40		42								53		55		57																				89			92				
C-	C*17:23/33			4									25						31								42								53		55		57																		86		89							99
C-	C*17:25												25						31					38			42								53		55		57																		86		89			92				
C-	C*17:26			4									25						31					38			42								53		55																	83			86		89			92				
C"Blank"	C*17:27N			4									25						31					38			42								53		55		57																				89			92				
C-	C*17:32			4									25						31					38			42								53				57																		86		89			92				
C-	C*17:34/36/42/52			4									25						31					38			42												57																		86		89			92				
C-	C*17:35:01~35:02			4									25						31					38			42												57				61														86		89			92				
C-	C*17:40			4									25						31					38			42								53		55		57																		86		89		91	92				
C-	C*17:48			4									25						31					38			42								53		55		57								66									86		89			92				
C-	C*18:01:01:01~02:05/04/06/10~11/13			4												28			31								42						51					56				60	61											85	86								99
C-	C*18:03			4												28			31					38			42						51										61										80			85	86					92				
C-	C*18:05									18						28			31								42						51					56				60	61														86									99
C"Blank", C-	C*18:07N/14			4												28			31														51					56				60	61												85	86								99
C-	C*18:08			4												28			31								42						51					56				60	61						70							85	86								
C-	C*18:09			4									25						31								42						51	52				56				60	61				64								85	86								99
C-	C*18:12			4	5											28			31								42						51					56				60	61												85	86								99

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

☐ Patient ☐ Male
☐ Donor ☐ Female

Name

Race

ABO/Rh

Sample I.D.

Birthdate

Relationship to Patient

Disease

DNA Extraction Method

Bead Mix Exp. Date

DNA Concentration

Bead Mix Lot#

Results

Taq Lot #

Primer Mix Lot#

D-mix Lot #/Batch #

SAPE Solution Lot#

Comments:

LABScan™ 100 Serial#

Raw Data File ID

Test Performed by

Date

Read by

Date

Reviewed by

Date

Photo Documentation

The allele nomenclature includes the HLA alleles listed in the July 2020 update of the IMGT/HLA database release 3.41.0 (Robinson J, et al., "IMGT/HLA and IMGT/MHC: sequence databases for the study of the major histocompatibility complex" Nucleic Acids Research (2003), 31, 311-314). Complete update information is located at www.ebi.ac.uk/imgt/hla/.

Revision summary: July 2020 nomenclature update based on IMGT/HLA 3.41.0.

(Bead 89) DRB1*04:49 is added to the bead specificity.

Allele sequences are obtained from the IMGT database. Updates, including modifications to allele sequences may alter bead specificity.

DRB1*01:39N, DRB1*01:40N, DRB1*01:63, DRB1*01:65:02, DRB1*01:108, DRB1*03:01:14, DRB1*03:42, DRB1*03:87, DRB1*03:123, DRB1*03:135, DRB1*04:298, DRB1*07:71, DRB1*08:64, DRB1*08:65, DRB1*09:07, DRB1*09:09, DRB1*09:20, DRB1*10:35, DRB1*11:04:11, DRB1*11:30, DRB1*11:95, DRB1*11:201, DRB1*12:57, DRB1*13:67, DRB1*13:109, DRB1*13:121, DRB1*13:195, DRB1*13:199, DRB1*14:46, DRB1*14:141, DRB1*15:19, DRB1*15:74, DRB1*15:105:01, DRB1*15:105:02, DRB1*15:110, DRB1*15:139, DRB1*15:150, DRB1*15:161, DRB1*16:22, DRB1*16:39 are not amplified by the primers for this kit. DRB3*01:14, DRB4*01:97, DRB4*01:125 are amplified. The following alleles have mismatches with primers in this kit, and their amplifiability has not been determined: DRB1*04:195, DRB1*08:39, DRB1*11:247, DRB1*14:142

Not all alleles were directly tested. Untested alleles were predicted and, therefore, may cause false reactions. Refer to 'Nomenclature List' for the list of tested alleles.

Serological equivalent for alleles are based on the HLA Dictionary (S.G.Marsh, et al.: "Nomenclature for factors of the HLA system, 2010," Tissue Antigens (2010) 75:291-455)

The allele specificity for some beads include alleles with unsequenced regions at the target site. (Sequence information is available at www.ebi.ac.uk/imgt/hla/.) For these alleles, the published sequence from the most closely related allele is used as reference for the unsequenced regions. The reference allele provides the most likely prediction of the unsequenced regions. There may be a disparity between the predicted and newly sequenced information, which may alter the allele specificity of a bead Allele specificity information will be updated as new sequence information is available.

This product is intended for low resolution HLA typing results. Typing results outside this specification may produce ambiguities that require additional testing to resolve.

The following alleles are not included in this kit: DRB1*01:39N, DRB1*01:40N, DRB1*01:63, DRB1*01:65:02, DRB1*01:108, DRB1*03:01:14, DRB1*03:42, DRB1*03:87, DRB1*03:123, DRB1*03:135, DRB1*04:298, DRB1*07:71, DRB1*08:64, DRB1*08:65, DRB1*09:07, DRB1*09:09, DRB1*09:20, DRB1*10:35, DRB1*11:04:11, DRB1*11:30, DRB1*11:95, DRB1*11:201, DRB1*12:57, DRB1*13:67, DRB1*13:109, DRB1*13:121, DRB1*13:195, DRB1*13:199, DRB1*14:46, DRB1*14:141, DRB1*15:19, DRB1*15:74, DRB1*15:105:01, DRB1*15:105:02, DRB1*15:110, DRB1*15:139, DRB1*15:150, DRB1*15:161, DRB1*16:22, DRB1*16:39

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name ______________________ Sample ID ______________

DRB1 Locus

		004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)																																																																														
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
Serology Equivalent	**DRB1 Locus Allele Group**																																																																													
P.C.	Positive Control																				34																																																							
N.C.	Negative Control																					35																																																						
DR1, DR-, DR"Blank"	DRB1*01:01:01:01~01:01:02/01:05/01:07~01:10/01:12~01:13/01:17/01:19/01:23~01:25/01:28~01:30/01:32~01:34/05/07/11:01~11:02/19/21/24:01/25/27~28/32/41/45/50/52N~53/62:01N/64~65:01/67/69~73/77~80/82/91Q~92/95/98/100/103~107/109/112/115						16		18																															55				62												75	76						86		88											
DR1, DR-	DRB1*01:01:02/01:04/01:06/01:11/01:14/08/13/110/113						16		18																																			62												75	76						86		88											
DR1	DRB1*01:01:03						16		18																															55				62													76						86		88											
DR1, DR-	DRB1*01:01:15/01:26/59/90						16		18																															55				62												75	76								88											
DR1, DR-, DR"Blank"	DRB1*01:01:16/01:22/30/37~38/48/56/62:02N								18																															55				62												75	76						86		88											
DR1, DR-	DRB1*01:01:18/24:02								18																						46									55				62												75	76						86		88											
DR1, DR-	DRB1*01:01:20/36						16																																	55				62													76						86		88											
DR1, DR-, DR"Blank"	DRB1*01:01:21/22/33N/49						16		18																															55				62												75							86		88											
DR1, DR-	DRB1*01:01:27/01:31/31/47/60/84						16		18																															55				62												75	76						86													
DR1, DR-	DRB1*01:02:01:01~02:01:03/02:05~02:06/02:08~02:11/02:13/35/46/54/58/81/83/87~88/93~94/96~97						16																																	55																75	76					85	86		88											
DR1	DRB1*01:02:02						16																																	55																75	76					85			88											
DR1, DR-	DRB1*01:02:03/34/57/86						16																																																	75	76					85	86		88											
DR1	DRB1*01:02:04																																							55																75	76					85	86		88					93						
DR1	DRB1*01:02:07																														46									55																75	76					85	86		88											
DR1, DR-	DRB1*01:02:12/76						16																																	55																75	76					85	86													
DR103, DR-	DRB1*01:03:01/03:03/89/102						16	17		19																		43												55				62													76								88											
DR103	DRB1*01:03:02						16	17		19																		43																62													76								88											
DR103	DRB1*01:03:04							17		19																		43												55				62													76								88					93						
DR1, DR-	DRB1*01:04/20:01~20:02/85						16																																	55																75	76						86		88							95				
DR-	DRB1*01:06						16																																	55																	76								88							95				
DR1	DRB1*01:09						16																																	55				62					67								76								88											
DR-	DRB1*01:10						16																																	55				62													76								88				92							
DR-	DRB1*01:101						16																	38																55																	76								88							95	96			
DR-	DRB1*01:111																														46									55	57					64											76					85			88											
DR-	DRB1*01:114						16												32																					55																75	76					85			88											
DR-, DR"Blank"	DRB1*01:12/29:01~29:02/68N						16																																	55				62													76								88											
DR-	DRB1*01:14					14			18		21																													55				62												75	76						86		88											
DR-	DRB1*01:15						16																																	55				62				66	67								76								88											
DR-	DRB1*01:16						16																	38																55				62													76								88								96			
DR-	DRB1*01:17						16		18										32																					55				62												75	76								88											
DR-	DRB1*01:18:01						16		18																								48							55				62												75	76						86													
DR-	DRB1*01:18:02								18																						46		48							55				62												75	76						86													
DR-	DRB1*01:23			11			16																																	55	57		60														76					85			88											
DR-	DRB1*01:26/43																																							55																75	76					85	86		88											
DR-	DRB1*01:42						16	17																				43												55																	76					85			88											
DR-	DRB1*01:44:01						16																										48							55																75	76					85	86													
DR-	DRB1*01:44:02																														46		48							55																75	76					85	86													
DR-	DRB1*01:51			11			16																																	55	57		60	62													76								88											
DR-	DRB1*01:55						16		18																															55				62												75	76								88								96			

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name ____________________ Sample ID ______________

DRB1 Locus

Serology Equivalent	DRB1 Locus Allele Group	004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)																																																																														
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
DR-	DRB1*01:61						16	17																				43												55																	76								88							95				
DR-	DRB1*01:66								18																39															55				62										73		75	76			83			86		88											
DR-	DRB1*01:74						16																																	55																	76					85			88											
DR-	DRB1*01:75								18						28															45										55				62							69					75	76						86		88											
DR-	DRB1*01:99						16	17		19																												53		55				62													76								88											
DR17, DR-, DR"Blank"	DRB1*03:01:01:01~01:01:03/01:03/01:05/01:08/01:11/01:13/01:15/01:17/01:19~01:22/01:24/01:26~01:30/18~19/22/28/37/45/50~51/52:02/55~56/58~59/61~62/66/68N/72~73/83/93/98/100:01~100:02/104/109/112/114/116~117/124/127~129/132/134/136~137/139/142/144/146~147/149/151~153/159/161/164~166/169~170/172						16							26		29								38									48																										82									91				95	96			
DR17, DR-, DR3	DRB1*03:01:02/15:01~15:02/34/78/133						16							26		29								38									48																										82									91				95				
DR17, DR"Blank", DR-	DRB1*03:01:04/11:01/84/95/174N						16							26		29																	48																										82									91				95				
DR17, DR-, DR"Blank"	DRB1*03:01:06~01:07/01:09~01:10/13:01/46~47/64/67N/110/156N/163													26		29								38									48																										82									91				95	96			
DR17	DRB1*03:01:12											22		26		29								38							46		48																										82									91				95	96			
DR17, DR-	DRB1*03:01:16/01:23/16/77/82/107/138/160						16							26		29								38																																			82									91				95	96			
DR17, DR-	DRB1*03:01:18/32/39/54/94/99/101/113/120/141/150						16									29								38									48																										82									91				95	96			
DR17	DRB1*03:01:25													26		29								38									48																										82									91		93		95	96			
DR18, DR-	DRB1*03:02:01/02:03~02:04/102~103/115/154						16									29								38																		59		62															82						88			91					96			
DR18, DR-	DRB1*03:02:02/90						16									29								38																		59		62															82						88			91								
DR18	DRB1*03:03						16									29								38																		59																	82						88			91				95	96			
DR17, DR-, DR3	DRB1*03:04:01/23/33/43~44/52:01/71:01~71:02/106/108						16							26										38									48																										82													95	96			
DR17	DRB1*03:04:02											22		26										38							46		48																										82													95	96			
DR3	DRB1*03:05:01~05:02						16							26		29								38									48											62															82									91					96			
DR3	DRB1*03:05:03/14						16							26		29								38									48											62															82									91								
DR3, DR-	DRB1*03:06/80						16							26		29								38																																			82						88			91				95	96			
DR3, DR-	DRB1*03:07:01~07:02/171						16									29								38		40							48																										82									91				95	96			
DR-	DRB1*03:08/140	4												26	28	29								38									48																		69								82									91				95	96			
DR-	DRB1*03:09						16							26										38									48											62															82														96			
DR17	DRB1*03:10					14					21			26		29								38									48																										82									91				95	96			
DR-	DRB1*03:105						16						25											38		40							48																										82													95	96			
DR-	DRB1*03:119						16									29								38									48									59																	82									91				95	96			
DR3	DRB1*03:12													26		29								38	39								48																										82									91				95	96			
DR-	DRB1*03:122						16							26		29								38																				62															82						88			91					96			
DR-, DR13	DRB1*03:125; DRB1*13:27:01~27:02						16							26		29												43					48																										82												94	95				
DR-	DRB1*03:126						16							26		29			32														48																							75			82													95				
DR-	DRB1*03:13:02													26		29								38									48																										82									91				95				
DR-	DRB1*03:130													26		29								38									48											62															82									91								
DR-	DRB1*03:145						16							26		29								38									48																										82			85						91								
DR-	DRB1*03:155												25											38	39	40																		62															82						88								96			
DR-	DRB1*03:157						16							26		29																	48				52																						82									91				95				
DR-	DRB1*03:158													26		29								38	39																																		82						88			91				95	96			

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name

Sample ID

DRB1 Locus

		004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)																																																																											
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
Serology Equivalent	**DRB1 Locus Allele Group**																																																																												
DR-	DRB1*03:162						16							26		29								38									48																															87				91				95	96			
DR-	DRB1*03:167															29																										59		62											74				82						88			91								
DR-	DRB1*03:17						16																			40																		62											74				82						88											
DR-	DRB1*03:20						16							26		29								38									48																										82			85						91					96			
DR-	DRB1*03:21						16																	38		40							48												63														82													95	96			
DR-	DRB1*03:24						16									29										40							48																						74				82									91				95				
DR-	DRB1*03:25:01						16							26			30							38									48																										82													95	96			
DR-	DRB1*03:25:02/118						16						25	26										38									48																										82													95	96			
DR-	DRB1*03:26						16							26										38																																			82						88							95	96			
DR-	DRB1*03:27						16									29																										59		62											74				82						88			91								
DR-	DRB1*03:29						16									29								38									48									59		62															82									91					96			
DR-	DRB1*03:30						16							26										38									48												63														82													95	96			
DR-	DRB1*03:31						16							26			30							38																																			82						88							95	96			
DR-	DRB1*03:35																									40																		62	63										74				82						88					93						
DR3	DRB1*03:36						16							26										38									48																										82									91				95	96			
DR-	DRB1*03:38															29		31						38					44													59		62															82						88			91					96			
DR3	DRB1*03:40						16						25											38		40							48											62															82														96			
DR-	DRB1*03:41:01~41:02						16						25											38		40																		62															82						88								96			
DR-	DRB1*03:48/57/63/121						16							26		29								38									48																										82									91					96			
DR-	DRB1*03:49		6				16						25											38		40							48																										82													95	96			
DR-	DRB1*03:53						16									29								38																		59		62															82									91					96			
DR-	DRB1*03:60						16									29								38																																			82						88			91				95	96			
DR-	DRB1*03:65	4												26	28	29								38									48																		69								82								90	91				95	96			
DR-	DRB1*03:69/86/111/143/148/168/173						16							26		29								38									48																																			91				95	96			
DR-	DRB1*03:70						16							26		29																	48																										82													95	96			
DR-	DRB1*03:74						16									29								38																		59		62																					88			91					96			
DR-	DRB1*03:75						16						25	26										38																																			82						88							95	96			
DR-	DRB1*03:76						16							26		29																	48																										82									91	92			95				
DR-	DRB1*03:79													26		29		31						38					44				48																										82									91				95	96			
DR-	DRB1*03:81						16							26		29																	48											62											74				82									91								
DR-	DRB1*03:85													26		29		31						38																																			82						88			91				95	96			
DR-	DRB1*03:88/131															29								38																		59		62															82						88			91					96			
DR-	DRB1*03:89						16							26		29								38																																			82									91					96			
DR-	DRB1*03:91						16							26		29																	48																							75			82													95	96			
DR-	DRB1*03:92						16							26		29								38									48																	68														87				91				95	96			
DR-	DRB1*03:96													26		29		31						38									48																										82									91				95	96			
DR-	DRB1*03:97						16									29										40							48																										82									91				95				
DR4, DR-, DR"Blank"	DRB1*04:01:01:01~01:01:03/01:06/01:08/01:11/01:17/01:19~01:20/33/38/72:01~72:02/76/111~112/119N/127/130:01~130:02/135/139/151/155/171/175/179/190/192/196/216~217/233/242~243/248/254/257/261/266N/268/270/273~274/281/285/296/304		6				16																			40																		62																					88	89			92							
DR4, DR-, DR"Blank"	DRB1*04:01:02~01:03/63/113/184/187/236/253/280N						16																			40																		62																					88	89			92							
DR4, DR-	DRB1*04:01:04/01:07/01:21/117/174/194/239		6				16																			40																		62																						89			92							
DR4, DR-	DRB1*04:01:05/34/64/66/115/153/208/271		6				16																			40																		62																					88				92							
DR4, DR-	DRB1*04:01:09/01:13/01:16/01:22/16/26/159		6																							40																		62																					88	89			92							

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name ______________ Sample ID ______________

DRB1 Locus

		004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)																																																																												
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
Serology Equivalent	**DRB1 Locus Allele Group**																																																																											
DR4	DRB1*04:01:10		6																							40																		62																					88	89			92	93						
DR4, DR-, DR"Blank"	DRB1*04:01:12/01:15/08:05/75/98:01/128/141/158N/166/188~189		6				16																			40																		62																					88	89										
DR4	DRB1*04:01:14		6																							40					46													62																					88	89			92							
DR4, DR-	DRB1*04:01:18/215		6				16																			40																																							88	89			92							
DR4, DR-	DRB1*04:02:01~02:02/02:06/124/133/238/287		6				16	17																		40		43																																					88	89						95				
DR4	DRB1*04:02:03		6				16	17																		40		43																																						89						95				
DR4	DRB1*04:02:04		6				16	17																				43																																					88	89						95				
DR4	DRB1*04:02:05		6				16																			40		43																																						89						95				
DR4, DR-, DR"Blank"	DRB1*04:03:01:01~03:01:02/03:03/03:05/03:07~03:13/03:15~03:16/50~52/60/71/88/93/96/109/142N/148/165/167/181/183/195/198/218/226:01~226:02/228/234/279/300N		6				16												32							40																														75									88	89						95				
DR4	DRB1*04:03:02		6																32							40					46																									75									88	89						95				
DR4	DRB1*04:03:04		6																32							40																														75									88	89				93		95				
DR4	DRB1*04:03:06		6				16												32							40																														75									88							95				
DR4, DR-	DRB1*04:03:14/41/110/295						16												32							40																														75									88	89						95				
DR4, DR"Blank", DR-	DRB1*04:04:01/04:03~04:04/04:10~04:16/23/44:01~44:02/56:01/70/120N~121/149/157N/182/193/220/223~224/240/247N/258/272/275~276/288/290/302		6				16																			40																														75							86		88	89						95				
DR4, DR-	DRB1*04:04:02/56:02		6																							40					46																									75							86		88	89						95				
DR4, DR-, DR"Blank"	DRB1*04:04:05/32/122/168/267N/282		6				16																			40																																							88	89						95				
DR4	DRB1*04:04:06		6																							40																														75							86		88	89				93		95				
DR4, DR-	DRB1*04:04:07/40/108/180		6																							40																														75							86		88	89						95				
DR4, DR"Blank", DR-	DRB1*04:04:08/04:17/94:01N~95:02		6				16																			40																														75									88	89						95				
DR4, DR-	DRB1*04:04:09/79/118		6				16																			40																														75							86			89						95				
DR4, DR-, DR"Blank"	DRB1*04:05:01:01~05:04/05:07/05:09~05:10/05:14/05:19~05:22/29/45/80/87/90/104/107/116/131:01~131:02/178N/213/232/245/286N/289/292		6					18																39	40																		62										73		75				83			86		88	89										
DR4, DR-	DRB1*04:05:05/05:13/30/89/162/227		6					18																39	40																		62										73		75				83			86			89										
DR4, DR-	DRB1*04:05:06/05:18/08:03/305		6					18																	40																		62												75							86		88	89										
DR4	DRB1*04:05:08		6																						39	40																		62										73						83					88	89										
DR4, DR-	DRB1*04:05:11/137/173		6					18																39	40																		62												75				83					88	89										
DR4, DR-, DR"Blank"	DRB1*04:05:15~05:17/77/83/152/214N/255								18																39	40																		62										73		75				83			86		88	89										
DR4, DR-	DRB1*04:06:01~06:02/06:05~06:07/49/144/219/260/277						16												32							40										51																				75									88	89						95				
DR4	DRB1*04:06:03																		32							40										51																				75									88	89				93		95				
DR4	DRB1*04:06:04																		32							40					46					51																				75									88	89						95				
DR4, DR-	DRB1*04:07:01:01~07:01:02/07:03~07:05/92/129/197/209/222/246/249/256/262~263/269		6				16		18										32							40																		62												75									88	89										
DR4	DRB1*04:07:02		6				16												32							40																		62																					88	89										
DR4, DR-	DRB1*04:07:06/160		6				16		18										32							40																		62												75									88											

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name ______________________

Sample ID ______________

DRB1 Locus

		004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)																																																																												
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
Serology Equivalent	**DRB1 Locus Allele Group**																																																																																
DR4, DR-	DRB1*04:08:01/08:04/205/231/252/297		6				16		18																	40																		62												75							86		88	89										
DR4	DRB1*04:08:02		6						18																	40					46													62												75							86		88	89										
DR4, DR-	DRB1*04:09/125		6																						39	40																		62										73											88	89			92							
DR4, DR-	DRB1*04:10:01~10:03/201/207		6																						39	40																														75				83			86		88	89						95				
DR-	DRB1*04:101		6				16												32							40																																80							88	89						95				
DR-	DRB1*04:102/172						16		18										32							40																		62												75									88	89										
DR-	DRB1*04:103		6						18																39	40											52							62												75				83					88	89										
DR-	DRB1*04:105:01		6																							40					46													62				66	67																88	89										
DR-	DRB1*04:105:02		6				16																			40																		62				66	67																88	89										
DR-	DRB1*04:106		6					17		19															39	40		43																62										73											88	89										
DR4, DR-	DRB1*04:11:01/11:06/203/303		6																32						39	40																														75				83					88	89						95				
DR4	DRB1*04:11:02/11:04		6																32						39	40																														75				83						89						95				
DR4, DR-	DRB1*04:11:03/11:05/169/294		6																32							40																														75									88	89						95				
DR-	DRB1*04:12		6																						39	40						47			50		52																												88	89						95				
DR-	DRB1*04:123/200/241		6				16																																					62																					88	89			92							
DR-	DRB1*04:126		6																						39	40											52																			75				83					88	89						95				
DR4	DRB1*04:13		6				16																			40																																							88	89			92			95				
DR-	DRB1*04:132		6				16	17		19																40																	60	62																					88	89										
DR-	DRB1*04:134		6				16	17																		40		43																																					88							95				
DR-	DRB1*04:136		6																32						39	40						47			50																														88	89						95				
DR-	DRB1*04:138		6					17							28								36			40		43		45																					69														88	89						95				
DR4	DRB1*04:14		6				16	17		19																40		43																62																					88	89										
DR-	DRB1*04:140		6				16																			40																		62											74										88	89										
DR-	DRB1*04:143		6				16	17																		40												53																											88	89						95				
DR-	DRB1*04:145		6												28											40				45														62							69														88	89			92							
DR-	DRB1*04:146		6			14					21								32							40																														75									88	89						95				
DR-	DRB1*04:147		6																						39	40							48																							75				83			86			89						95				
DR4	DRB1*04:15		6												28											40				45					50											64					69														88	89	90					95		97		
DR-	DRB1*04:154		6												28				32							40				45																					69					75									88	89						95				
DR-	DRB1*04:161/237/259						16	17																		40		43																																					88	89						95				
DR-	DRB1*04:163		6				16												32																																					75									88	89						95				
DR-	DRB1*04:164/177/301						16																			40																														75							86		88	89						95				
DR4	DRB1*04:17:01~17:02		6						18										32						39	40																		62												75				83					88	89										
DR-	DRB1*04:170		6						18						28				32							40				45														62							69					75									88	89										
DR-	DRB1*04:18		6				16																			40						47		49	50		52																												88	89						95				
DR-	DRB1*04:185		6				16																			40						47			50		52							62																	84				88	89										
DR"Blank", DR-	DRB1*04:186N/244						16																			40										51																				75									88	89						95				
DR4	DRB1*04:19						16		18																	40										51								62												75							86		88	89										
DR-	DRB1*04:191		6																						39	40									50		52							62		64																			88	89										
DR-	DRB1*04:199		6				16		18										32							40							48											62												75										89										
DR4	DRB1*04:20						16		18										32							40										51								62												75									88	89										
DR-	DRB1*04:202		6						18																39																			62										73		75				83			86		88	89										
DR-	DRB1*04:204		6				16	17																		40		43																																					88	89										
DR-	DRB1*04:206		6	11			16																			40									50								60	62																					88	89								97		
DR4	DRB1*04:21						16																			40										51								62																					88	89			92							
DR-	DRB1*04:210		6				16																			40		43					48																																	89						95				
DR-	DRB1*04:211						16									29										40																														75							86		88	89						95				
DR4	DRB1*04:22		6				16						25											38		40																																							88	89						95	96			
DR-	DRB1*04:221		6				16																			40																														75							86		88							95				
DR-	DRB1*04:225								18																	40					46													62												75							86		88	89										
DR-	DRB1*04:229		6				16		18																	40																		62												75							86		88											
DR-	DRB1*04:230						16																			40							48																							75							86			89						95				
DR-	DRB1*04:235					14					21								32							40										51																				75									88	89						95				
DR4, DR"Blank"	DRB1*04:24/81N		6																						39	40																		62										73											88	89										

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name ______________________

Sample ID ______________________

DRB1 Locus

		004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)|																																																																												
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
Serology Equivalent|**DRB1 Locus Allele Group**|																																																																												
DR4	DRB1*04:25		6				16																			40								49	50		52									64																				88	89						95				
DR-	DRB1*04:250																								39	40																														75				83			86		88	89						95				
DR-	DRB1*04:251		6			14					21								32							40																																80							88	89						95				
DR"Blank"	DRB1*04:264N								18																39																			62										73		75				83			86		88	89										
DR-	DRB1*04:265		6												28											40				45					50									62		64					69														88	89	90							97		
DR-	DRB1*04:27		6				16												32							40																														75							85			88	89										
DR-	DRB1*04:278		6				16		18										32							40																	62												75										89										
DR4	DRB1*04:28		6						18																39	40							48											62									73		75				83			86			89										
DR-	DRB1*04:283		6				16						25											38		40																		62																					88	89							96			
DR-	DRB1*04:284		6				16																			40							48														66																			89						95				
DR-	DRB1*04:291		6												28				32							40							48																	69					75											89						95				
DR-	DRB1*04:293		6				16												32							40																					66																		88	89						95				
DR"Blank"	DRB1*04:299N		6				16	17																		40																																								88	89						95				
DR4	DRB1*04:31		6				16		18																	40											52							62												75									88	89										
DR-	DRB1*04:35		6				16																			40							48											62																						89			92							
DR-	DRB1*04:36		6				16																			40									50											64																			88	89						95		97		
DR-	DRB1*04:37		6				16	17																		40																	60																						88	89						95				
DR-	DRB1*04:39/156		6				16												32							40																														75										89						95				
DR4	DRB1*04:42		6				16																			40							48																						75							86			89						95				
DR-	DRB1*04:43		6				16		18																	40							48											62												75							86			89										
DR-	DRB1*04:46																		32							40										51																				75									88	89						95				
DR-	DRB1*04:47		6				16																			40									50						57			62		64																			88	89										
DR-	DRB1*04:48		6																						39	40																		62															83					88	89										
DR-	DRB1*04:53:01		6				16																			40						47			50						57																									88	89						95				
DR-	DRB1*04:53:02		6				16																			40						47			50																															88	89						95		97		
DR-	DRB1*04:54		6				16																			40									50		52							62		64															84				88	89										
DR-	DRB1*04:55		6				16																			40								49			52																			75									88	89						95				
DR-	DRB1*04:57		6						18																	40																		62										73		75							86		88	89										
DR-	DRB1*04:58		6	11			16																			40								49	50		52						60																						88	89						95				
DR-	DRB1*04:59		6				16												32							40							48																						75										89						95				
DR-	DRB1*04:61		6						18						28											40				45														62							69					75							86		88	89										
DR-	DRB1*04:62		6			14					21															40																	62																				88	89			92							
DR-	DRB1*04:65/114/176						16												32							40										51																														88	89						95				
DR-	DRB1*04:67		6																						39	40																																								88	89			92			95				
DR-	DRB1*04:68						16																			40										51																				75							86		88	89						95				
DR-	DRB1*04:69		6			14					21								32							40																	62														80							88	89										
DR-	DRB1*04:73:01		6																							40					46																	66																			88	89						95				
DR-	DRB1*04:73:02		6				16																			40																					66																		88	89						95				
DR"Blank", DR-	DRB1*04:74/212N		6				16		18																	40																	62												75									88	89										
DR-	DRB1*04:78						16												32							40										51																						80							88	89						95				
DR-	DRB1*04:82		6															31								40			44			47			50						57			62																					88	89										
DR-	DRB1*04:84								18																39	40										51								62									73		75				83			86		88	89										
DR-	DRB1*04:85						16												32							40										51																				75										89						95				
DR-	DRB1*04:86		6																						39	40						47			50		52							62																					88	89										
DR-	DRB1*04:91																		32						39	40										51																				75				83					88	89						95				
DR-	DRB1*04:97/100/150		6				16												32							40																																							88	89						95				
DR-	DRB1*04:98:02		6				16						25											38		40																		62																					88	89										
DR-	DRB1*04:99																	31								40			44			47			50	51					57																										88	89						95				

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name ______________________ Sample ID ______________

DRB1 Locus

		004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)																																																																												
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
Serology Equivalent	**DRB1 Locus Allele Group**																																																																												
DR7, DR-, DR"Blank"	DRB1*07:01:01:01~01:01:04/01:03~01:06/01:09/01:11/01:13/01:15~01:18/01:21~01:22/03/05/07/09~11/13/15~18/21/25~34:02/38/40~43/47~53/55~56/58N~63/65~66/68N/72~73/75/77/79/81/84~90/92~96/98~100/102~111/113~114																	31											44															62	63							70													88											
DR7, DR-	DRB1*07:01:02/22~23/36~37/64/80																	31											44															62	63																			88											
DR7, DR-, DR"Blank"	DRB1*07:01:07~01:08/01:12/01:19~01:20/06/12/44~45/54/57/76/91/101N																																											62	63							70													88											
DR7, DR-	DRB1*07:01:10/01:23/19/46/74/78																	31											44															62	63							70																								
DR7, DR-	DRB1*07:01:14/24/35/82																	31											44																63							70													88											
DR7	DRB1*07:04																	31											44															62	63							70			74									88											
DR-	DRB1*07:08/14/39/69~70/112																	31											44															62								70													88											
DR-	DRB1*07:20																	31											44																63							70													88										98	
DR-	DRB1*07:67																	31																										62	63							70													88											
DR-	DRB1*07:83																														46													62	63							70													88											
DR-	DRB1*07:97																												44															62	63							70													88											
DR8, DR-, DR"Blank"	DRB1*08:01:01/01:04~01:05/01:07/16/39/50/55/77~79/86~88/90/93/96/100																								39	40											52							62		64				68															88											
DR8, DR-	DRB1*08:01:02/26																								39												52							62		64				68															88											
DR8	DRB1*08:01:06																								39	40											52							62		64																			88											
DR8, DR-, DR"Blank"	DRB1*08:02:01:01~02:04/42/44/72~73/84~85/89N						16																			40											52							62		64				68											84				88											
DR8, DR-	DRB1*08:03:02:01~03:10/23/27/36:01/49/53/56/66/68:01~68:02/71/74/76/91/95/97																								39	40						47					52							62						68															88											
DR8	DRB1*08:03:11																30								39	40						47					52							62						68															88											
DR8, DR-	DRB1*08:04:01/04:04~04:05/59/67/94						16																			40								49			52									64				68															88							95				
DR8	DRB1*08:04:02~04:03						16																			40											52									64				68															88											
DR8	DRB1*08:04:06																									40					46						52									64				68															88							95				
DR8, DR-	DRB1*08:04:07/99						16																											49			52									64				68															88							95				
DR8	DRB1*08:05																								39	40																		62		64				68				73											88									97		
DR8, DR-	DRB1*08:06/54/70																								39	40											52									64				68															88							95				
DR8	DRB1*08:07/11																									40											52							62		64				68															88											
DR-	DRB1*08:08				13	14					21															40											52							62		64				68															88											
DR8	DRB1*08:09:01~09:02						16																			40											52							62	63	64				68											84			87	88											
DR8	DRB1*08:10																								39	40						47					52													68															88							95				
DR-	DRB1*08:101						16																														52							62		64				68											84				88											
DR-	DRB1*08:102								18																39	40																		62						68				73		75				83			86		88											
DR-	DRB1*08:103						16																			40							48				52							62		64				68											84															
DR8	DRB1*08:12																								39	40						47					52													68												85			88											
DR-	DRB1*08:13			11			16																			40											52						60	62						68											84				88											
DR8	DRB1*08:14																								39	40						47					52							62																					88											
DR-	DRB1*08:15					14																				40						47					52							62						68															88											
DR8	DRB1*08:17																								39	40							48				52							62		64				68																										
DR-	DRB1*08:18																								39	40						47												62						68				73											88									97		
DR-	DRB1*08:19/51/61/69																									40						47					52							62						68															88											
DR-	DRB1*08:20						16																			40								49			52									64													82						88							95				

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name _____ Sample ID _____

DRB1 Locus

Reaction Results (mark positive locations)

Serology Equivalent	DRB1 Locus Allele Group	004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
	Cut Off Value	15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
DR-	DRB1*08:21						16																			40											52							62	63	64														84			87	88												
DR-	DRB1*08:22																								39	40											52									64				68											85			88										
DR-	DRB1*08:24:01~24:02						16																			40																		62		64				68															88								97		
DR-	DRB1*08:25																	31								40			44			47									57			62						68															88										
DR-	DRB1*08:28						16																			40							48	49			52									64				68															88							95			
DR-	DRB1*08:29																		32						39	40						47												62						68															88										
DR-	DRB1*08:30:01/30:03						16																			40						47					52							62						68									84				88										
DR-	DRB1*08:30:02																									40						47					52							62						68															88					93				
DR11	DRB1*08:31														28											40				45															64				68	69														88		90					95		97		
DR-	DRB1*08:32																			33					39							47					52							62						68															88										
DR-	DRB1*08:33/58																								39	40						47					52							62						68																										
DR-	DRB1*08:34																	31								40			44			47					52							62						68															88										
DR-	DRB1*08:35																								39	40						47					52							62	63					68														87	88										
DR-	DRB1*08:36:02																30								39	40						47					52							62						68														87	88										
DR-	DRB1*08:37																								39	40						47	48				52							62						68																										
DR-	DRB1*08:38		6																						39	40						47			50		52							62						68															88										
DR-	DRB1*08:40																								39	40																		62						68				73											88										100
DR-	DRB1*08:41														28											40				45														62		64				68	69														88		90						97		
DR-	DRB1*08:43																								39	40																		62		64				68															88										
DR-	DRB1*08:45:01~45:02						16																			40						47	48				52							62						68									84														
DR-, DR"Blank"	DRB1*08:46/60N																								39	40						47					52												68															88										
DR-	DRB1*08:47																									40						47									57			62						68				73											88										
DR-	DRB1*08:48			11																					39	40											52						60	62						68															88										
DR-	DRB1*08:52																	31								40			44								52							62		64				68															88										
DR-	DRB1*08:57						16																			40											52							62		64													84				88										
DR-	DRB1*08:62																								39							47					52							62						68															88										
DR-	DRB1*08:63														28											40						47	48				52							62						68	69																									
DR-	DRB1*08:75														28											40				45							52									64				68	69														88		90					95			
DR-	DRB1*08:80						16																			40								49			52									64																			88							95			
DR-	DRB1*08:81~82						16																			40											52							62						68									84				88										
DR-	DRB1*08:83																									40								49			52									64				68															88							95			
DR-	DRB1*08:92							17		19															39	40		43																62						68				73											88										
DR-	DRB1*08:98						16																			40								49												64				68															88							95			
DR9, DR-	DRB1*09:01:02:01~01:03/01:10~01:11/04~05/10~11/13/16~19/21~23/25~28/30~31/33~36/38~40																	31	32										44															62			65										80							88										
DR9	DRB1*09:01:04															29		31	32										44															62			65										80							88										
DR9, DR-	DRB1*09:01:05/14																	31	32										44															62			65										80															
DR9	DRB1*09:01:06																	31	32										44															62			65																88										
DR9	DRB1*09:01:07																	31											44															62			65																88										
DR9, DR-	DRB1*09:01:08~01:09/08/24/32/44																		32																									62			65										80							88										
DR-	DRB1*09:02:01																		32												46													62			65										80							88										
DR-	DRB1*09:02:02/42						16												32																									62			65										80							88										
DR-	DRB1*09:03																	31											44															62		64	65																88										
DR-	DRB1*09:06																	31	32										44																		65										80							88							95			
DR-, DR"Blank"	DRB1*09:12/37N/43																	31	32										44															62														80							88										
DR-	DRB1*09:15/29																	31											44															62			65										80							88										
DR-	DRB1*09:41																	31	32										44																		65										80							88										
DR10, DR-	DRB1*10:01:01:01~01:07/01:10~01:13/03/06~07/10~11/14~15/17~20/22/24~28/30~34/37~39						16																																					62									72											88										
DR10, DR-	DRB1*10:01:08/01:15/08/16						16																																					62									72																			
DR10, DR-	DRB1*10:01:09/09/21																																											62									72											88										
DR10	DRB1*10:01:14																														46													62									72											88										

One Lambda, Inc. 22801 Roscoe Blvd., West Hills, CA 91304 Tel: (747) 494-1000 Fax: (747) 494-1001 www.onelambda.com

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name _____ Sample ID _____

DRB1 Locus

Reaction Results (mark positive locations)

Serology Equivalent	DRB1 Locus Allele Group	004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
DR-	DRB1*10:02						16																																														72																				95				
DR-	DRB1*10:04						16		18																																			62									72			75								86		88										
DR-	DRB1*10:05																								39																			62									72	73												88										
DR-	DRB1*10:12/36						16																																													72													88										
DR-	DRB1*10:13						16																										48											62									72																						
DR-	DRB1*10:23														28															45														62							69		72												88										
DR-	DRB1*10:29						16												32																									62									72					80							88										
DR11, DR-, DR"Blank"	DRB1*11:01:01:01~01:02/01:04~01:06/01:08/01:13~01:16/01:20~01:21/01:23/01:25~01:26/01:29~01:40/12:01/12:03/15/24:01~24:02/27:01~28:01/28:03~29:02/39/49:01~49:02/61~62:01/66:01~66:02/81/90/97/99~101:02/106/108/112/114/117:01~117:02/126/133/140~141/147:01~147:02/152/155/157~158/162/169N/186/188/197/199/204/208/212/215/219/222/225/234~236/238~240/243/245/247/250N/252/254/257/259/262~263/265/269/271														28											40							48											62			64				69								82								90							97		
DR11	DRB1*11:01:03/01:10~01:11														28											40							48								57			62			64				69								82								90										
DR11, DR-	DRB1*11:01:07/75/109														28											40																		62			64				69								82								90							97		
DR11, DR-	DRB1*11:01:09/01:27/32/51/164														28											40							48											62			64				69								82								90										
DR11, DR-	DRB1*11:01:12/62:02														28		30									40							48											62			64				69								82								90							97		
DR11, DR-	DRB1*11:01:17/01:28/05/134/144/205														28											40							48											62			64				69																	90							97		
DR11, DR-	DRB1*11:01:18~01:19/111/248Q/268														28											40							48											62							69								82															97		
DR11, DR-	DRB1*11:01:22/01:24/72/121/154/166/177/195/228														28																		48											62			64				69								82								90							97		
DR11, DR-	DRB1*11:02:01:01~02:01:02/02:04/70/124:01~124:02/127/242/251/256														28								36			40		43					48																		69								82														95			
DR11	DRB1*11:02:02														28								36			40		43																							69								82														95			
DR11	DRB1*11:02:03																						36			40		43					48																										82														95			
DR11, DR-	DRB1*11:02:05/118														28		30						36			40		43					48																		69								82														95			
DR11, DR-	DRB1*11:03:01~03:04/63:01~63:02/76/85/138/151/161/176/213/231/260														28								36			40							48					53													69								82								90							95			
DR11, DR-, DR"Blank"	DRB1*11:04:01~04:03/04:05~04:06/04:08~04:09/04:12/04:15~04:18/04:20/43~44/46:02/58:02/77~78/84:01~84:03/137/160/163/165:01~165:02/179/181/187/194/196/198/206~207/210~211/214/217N/220~221/223~224/227/230/244/253/255/258														28											40							48														64				69								82								90							95		97		
DR11, DR-	DRB1*11:04:04/46:01														28		30									40							48														64				69								82								90							95		97		
DR11	DRB1*11:04:07														28											40							48								57						64				69								82								90							95				
DR11, DR-, DR"Blank"	DRB1*11:04:10/92/180/246N														28																		48														64				69								82								90							95		97		
DR11, DR-	DRB1*11:04:13/156/203																									40							48														64												82														95		97		
DR11, DR-	DRB1*11:04:14/04:19/60/88														28											40																					64				69								82								90							95		97		
DR11	DRB1*11:04:21														28											40							48																			69								82								90							95		97		
DR11, DR-	DRB1*11:06:01~06:03/47/129/174														28											40							48														64				69								82			85					90									97		

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name _____ Sample ID _____

DRB1 Locus

Reaction Results (mark positive locations)

Serology Equivalent	DRB1 Locus Allele Group	004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
	Cut Off Value	15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
DR11	DRB1*11:07:01	4											25		28									38		40							48																		69							82											95	96			
DR11	DRB1*11:07:02	4											25		28									38		40							48																		69							82											95				
DR11	DRB1*11:08:01~08:02			11											28											40							48										60	62							69							82															97		
DR11	DRB1*11:08:03			11											28											40							48								57		60	62							69							82															97		
DR11, DR-	DRB1*11:09/28:02														28	29										40							48											62		64					69							82									90						97		
DR11, DR-	DRB1*11:10:01~10:02/12:02														28											40							48											62	63	64						69							82									90						97		
DR-	DRB1*11:102:01~102:02		6												28											40							48		50											64					69							82									90					95		97		
DR-	DRB1*11:103:01~103:02	4											25		28									38		40							48											62							69							82														96			
DR-	DRB1*11:104/146/261														28											40							48													64					69															90					95		97		
DR-	DRB1*11:105	4											25		28									38		40							48											62							69							82																			
DR-	DRB1*11:107	4											25		28									38		40				45														62							69							82						88						96				
DR11, DR-	DRB1*11:11:01~11:03/168/237									19					28								36			40							48					53						62							69							82									90							
DR-	DRB1*11:110/167/185/192; DRB1*13:197																									40							48											62		64											82															97		
DR-	DRB1*11:119														28											40						47	48				52														69							82											95				
DR-	DRB1*11:122									19					28	29							36			40							48					53						62							69							82									90				94			
DR-	DRB1*11:123/216														28											40							48													64					69							82									90					95		97		
DR-	DRB1*11:125	4											25		28									38		40							48											62							69							82									90						96			
DR11	DRB1*11:13:01~13:02														28											40							48												63							69							82											95				
DR-	DRB1*11:130			11											28											40							48										60								69							82											95		97		
DR-	DRB1*11:131/153														28											40							48																		69							82										92		95				
DR-	DRB1*11:132														28											40							48																		69							82											95				100
DR-	DRB1*11:135													26	28																		48													64					69							82									90					95		97		
DR-	DRB1*11:136	4													28											40							48											62							69				74			82															
DR-	DRB1*11:139/241														28								36										48					53													69							82									90					95				
DR11	DRB1*11:14:01~14:02									19					28								36			40		43					48											62							69							82															
DR-	DRB1*11:143/266														28											40							48											62							69							82									90							
DR-	DRB1*11:149														28											40				45													62	63	64						69							82						88		90						97		
DR-	DRB1*11:150														28				32							40							48											62		64					69							82									90							
DR-	DRB1*11:159														28				32							40							48																		69							80	82													95			
DR11	DRB1*11:16														28	29							36			40		43					48																		69							82											94	95				
DR-	DRB1*11:17														28				32							40				45														63							69							82						88						95				
DR-	DRB1*11:173	4											25		28									38		40							48																		69							82									90					95	96			
DR-	DRB1*11:175		6												28											40							48		50										62		64					69							82									90						97		
DR-	DRB1*11:178/272Q														28											40							48											62		64					69							82															97		
DR-	DRB1*11:18														28											40						47	48																		69							82											95		97		
DR-	DRB1*11:182													26	28	29																	48													64					69							82									90					95		97		
DR-	DRB1*11:184														28											40				45													62							69							82						88									100
DR-	DRB1*11:189														28											40				45														63	64					69							82						88		90					95		97		
DR11, DR-	DRB1*11:19:01/19:03/191														28											40						47	48											62							69							82															97		
DR11	DRB1*11:19:02														28											40						47	48								57			62							69							82															
DR-	DRB1*11:190/218														28											40							48												63	64					69							82									90					95		97		
DR-	DRB1*11:193:01~193:02														28											40							48											62		64				68	69															90						97		
DR11	DRB1*11:20									19					28	29							36			40		43					48											62							69							82											94				
DR-	DRB1*11:202														28				32							40							48												63						69							80	82												95				
DR-	DRB1*11:209														28											40							48													64				68	69															90					95		97		
DR11	DRB1*11:21														28								36			40		43					48																		69							82				85												
DR-	DRB1*11:22														28		30									40							48											62		64					69															89	90					97		
DR-	DRB1*11:229														28								36			40							48					53											68	69															90					95				
DR11	DRB1*11:23:01~23:02														28											40							48				52							62		64					69							82									90							
DR-	DRB1*11:232																									40							48											62		64					69							82									90						97		
DR-	DRB1*11:233														28								36			40							48					53													69							82									90							
DR11	DRB1*11:25														28											40							48				52									64					69							82									90					95				
DR11	DRB1*11:26								18						28											40							48											62							69					75			82					86											
DR-	DRB1*11:264						16																			40																		63	64													82						88						95		97		

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Name ____________________ Sample ID ____________________

DRB1 Locus

		004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)																																																																												
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
Serology Equivalent	**DRB1 Locus Allele Group**																																																																											
DR-	DRB1*11:267													28				32							40							48																			69					75			82												95				
DR-	DRB1*11:270													28									36			40		43					48																			68	69																							95				
DR-	DRB1*11:31																									40						47	48											62								69							82																	97		
DR-	DRB1*11:33/96/120																									40							48											62		64					69							82																	97		
DR-	DRB1*11:34													28													40							48																			69					75			82				86											95				
DR-	DRB1*11:35/38/116/148																									40							48													64					69							82														95		97		
DR-	DRB1*11:36													28									36			40							48											60							69							82														95				
DR-, DR11	DRB1*11:37:01~37:02/145/170/ 183/273													28													40				45															62		64					69							82						88		90							97		
DR-	DRB1*11:40													28	29								36			40							48					53															69							82								90				94	95				
DR-	DRB1*11:41							17							28									36			40				45									53															69							82						88		90					95				
DR-	DRB1*11:42:01			11											28													40							48											60							69							82														95		97		
DR-	DRB1*11:42:02			11											28													40							48								57		60							69							82														95				
DR-	DRB1*11:45													28													40						47	48				52								62								69							82																				
DR-	DRB1*11:48/171							17							28									36			40		43		45																					69							82						88							95				
DR-	DRB1*11:50/56/200/249													28													40				45																	64					69							82						88		90					95		97		
DR11	DRB1*11:52																				32								40																					63						69							80	82						88							95				
DR-	DRB1*11:53	4													28													40							48											62								69							82								90										
DR-	DRB1*11:54:01~54:02													28				32							40							48													64					69							82								90					95				
DR-	DRB1*11:55													28									36			40							48				52	53															69							82								90					95				
DR-	DRB1*11:57			11											28													40							48											60							69							82			85														97		
DR-	DRB1*11:58:01/113/115													28	29												40							48													64					69							82								90					95		97		
DR-	DRB1*11:59													26	28	29								36										48					53															69							82								90				94	95				
DR-	DRB1*11:64			11											28													40							48				52							60	62						69							82																				
DR-	DRB1*11:65:01~65:02																									40		43					48																			69							82														95				
DR-	DRB1*11:67													28													40							48				52											64				68	69																	90					95				
DR-	DRB1*11:68									19					28									36			40							48											60	62						69							82																				
DR-	DRB1*11:69													28													40							48											62					67		69							82								90										
DR-	DRB1*11:73													28													40							48											62								69							82																		100
DR-	DRB1*11:74:01~74:02/91/128/226													28													40							48													64					69							82								90							97		
DR-	DRB1*11:79													28													40							48											62								69							82										92								
DR-	DRB1*11:80/142													26	28																			48											62		64					69							82								90							97		
DR-	DRB1*11:82													28													40							48											62				66	67		69							82																				
DR-	DRB1*11:83													26	28	29																45																	64					69							82						88		90					95		97		
DR-	DRB1*11:86													28									36			40		43					48																			69							82																		98	
DR-	DRB1*11:87													26	28	29																		48											62		64					69							82								90							97		
DR-	DRB1*11:89													28				32							40							48																			69							80	82								90					95				
DR-	DRB1*11:93													28													40							48											62								69							82								90										100
DR-	DRB1*11:94/172													28													40							48											62		64																82								90							97		
DR-	DRB1*11:98													28													40							48																			69							82														95				
DR12, DR-, DR"Blank"	DRB1*12:01:01:01~01:01:06/ 01:03~01:04/01:07/01:09/06/08/ 10/17/25/28~30/34/36/63/68/70/ 72N/77/82/84																	31		33									44			47	48								57									68												85														
DR12	DRB1*12:01:02																	31		33									44			47	48																	68												85													97		
DR12, DR-	DRB1*12:01:05/83																	31		33									44			47	48								57																					85														
DR12, DR"Blank", DR-	DRB1*12:01:06/01:08/24N/47~48																			33												47	48								57									68												85														
DR12, DR-, DR"Blank"	DRB1*12:02:01:01~02:03/02:05/ 02:08~02:10/13/23/32/37/43/45/ 50~52/60N/64~65/69/71/78/80~81																	31		33									44				48								57					64				68												85														
DR12	DRB1*12:02:04																	31		33									44				48													64				68												85													97		
DR12, DR-, DR"Blank"	DRB1*12:02:06/18/33/74N																			33													48								57					64				68												85														
DR12, DR-	DRB1*12:02:07/15/26																	31											44				48								57					64				68												85														
DR12	DRB1*12:03:02~03:03																	31		33									44			47	48								57									68																								95				
DR-	DRB1*12:04													28						33												47	48								57									68	69											85														

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name _____ Sample ID _____

DRB1 Locus

Reaction Results (mark positive locations)

Serology Equivalent	DRB1 Locus Allele Group	004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
	Cut Off Value	15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
DR12, DR-	DRB1*12:05/59																	31											44			47	48								57									68												85															
DR-	DRB1*12:07																	31		33									44				48																	68												85															
DR-	DRB1*12:09						16													33												47	48								57									68												85															
DR-	DRB1*12:11																	31		33									44			47									57									68												85															
DR-	DRB1*12:12			11														31		33									44				48									57		60							68												85															
DR-	DRB1*12:14																	31											44			47	48								57				63					68												85															
DR-	DRB1*12:16:01																	31		33									44				48											62		64					68																									97			
DR-	DRB1*12:16:02~16:03																	31		33									44				48									57		62			64				68																													
DR-	DRB1*12:19																	31		33									44				48									57					64				68																							95				
DR-, DR"Blank"	DRB1*12:20/31N/42/44																	31		33									44				48									57					64															85															
DR-	DRB1*12:21																	31		33									44												57					64				68												85			88												
DR-	DRB1*12:22/39																	31		33									44			47	48								57			62						68																											
DR-	DRB1*12:27																	31		33						40			44				48									57					64				68												85		87												
DR-	DRB1*12:35																	31		33									44			47	48								57									68																											
DR-	DRB1*12:38																30	31											44			47									57									68												85			88												
DR-	DRB1*12:40/79																	31		33									44			47	48																	68												85															
DR-	DRB1*12:41																	31		33									44			47	48								57									68												85		87												
DR-	DRB1*12:46																			33					39							47	48								57									68												85															
DR-	DRB1*12:49														28					33													48													64				68	69											85				90							97			
DR-	DRB1*12:53																	31		33									44			47									57									68												85			88												
DR-	DRB1*12:54																	31		33												47	48								57									68												85															
DR-	DRB1*12:55																	31		33									44				48									57					64				68																											
DR-	DRB1*12:56																	31											44				48									57				63	64				68												85															
DR-	DRB1*12:58															29		31											44			47	48								57									68												85		87												
DR-	DRB1*12:61																	31		33									44				48									57									68												85															
DR-	DRB1*12:62			11			16													33													48									57		60							68												85															
DR-	DRB1*12:66																	31	32	33									44				48																	68						75						85															
DR-	DRB1*12:67																	31		33													48									57					64				68												85															
DR-	DRB1*12:73																	31		33									44				48					53													68												85															
DR-	DRB1*12:75																	31		33									44				48									57					64				68												85		87												
DR-	DRB1*12:76																			33											46										57					64				68												85			88												
DR13, DR-, DR"Blank"	DRB1*13:01:01:01~01:04/01:08/ 01:10~01:12/01:17~01:22/01:24~ 01:28/28:01~28:02/61:01~61:02/ 69/105/112~113N/117/125/130~ 131/141/148/153/166/173/186~ 187/190/200N~201/205/213/215/ 218/222/226/233/238/249N/251~ 252N/254/256/258/261/263/267/ 270~274/281/283/287/300						16									29									40		43						48																										82										94	95					
DR13	DRB1*13:01:05															29										40		43			46		48																										82										94	95					
DR13	DRB1*13:01:06															29										40		43					48																										82									93	94	95					
DR13, DR-, DR"Blank"	DRB1*13:01:07/110/137N/178/ 184/192/223/279						16									29										40							48																										82											95					
DR13, DR-, DR"Blank"	DRB1*13:01:09/01:14~01:15/ 01:23/35/51/80/177/185N/245/ 291						16									29										40		43																														82										94	95					
DR13, DR-	DRB1*13:01:13/01:29/59/92/102/ 138/294						16									29												43					48																										82										94	95					
DR13, DR-	DRB1*13:01:16/22:01/64/68/87/ 106/204/221/234/266/278Q						16																			40		43					48																										82											95					

One Lambda, Inc. 22801 Roscoe Blvd., West Hills, CA 91304 Tel: (747) 494-1000 Fax: (747) 494-1001 www.onelambda.com

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name ____________________

Sample ID ____________________

DRB1 Locus

Serology Equivalent	DRB1 Locus Allele Group	004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)																																																																													
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
DR13, DR-, DR"Blank"	DRB1*13:02:01:01~02:02/02:05~02:08/02:11/02:13~02:17/96:01~96:02/99/123/126/128/142N/168/202/207~212/220/236~237/239~241/244/255N/257/264~265/268N~269/275/280/282/285/288/293/297~298N/301						16			19						29										40		43					48											62															82													94					
DR13	DRB1*13:02:03									19						29										40		43			46		48											62															82													94					
DR13, DR-	DRB1*13:02:04/98/143/147/290						16									29										40		43					48																												82													94					
DR13, DR-	DRB1*13:02:09/73/145/243						16			19						29												43					48											62															82													94					
DR13, DR-	DRB1*13:02:10/74/140/296						16									29										40							48											62															82																		
DR13, DR-, DR"Blank"	DRB1*13:02:12/39/165/171:01~171:02/289N									19						29										40		43					48											62															82													94					
DR13, DR-	DRB1*13:03:01~03:02/03:04~03:05/03:07~03:09/33:01~33:03/95/115/151~152/174/194/227/230/253																								39	40																		62										73					82						88											100
DR13	DRB1*13:03:03																								39	40																		62										73					82																	100
DR13	DRB1*13:03:06																								39	40																		62										73											88											100
DR13	DRB1*13:04																								39	40		43					48																										82													95				
DR13, DR-	DRB1*13:05:01~05:02/50:02~50:03						16									29										40							48											62		64													82															97		
DR13	DRB1*13:05:03						16									29																	48											62		64													82															97		
DR13	DRB1*13:06						16									29										40						47	48																										82													95		97		
DR13	DRB1*13:07:01						16																			40																		62		64													82						88									97		
DR13	DRB1*13:07:02																									40					46													62		64													82						88									97		
DR13	DRB1*13:08						16	17																		40		43																	63														82						88							95				
DR-	DRB1*13:09						16									29										40							48															66											82													95				
DR13	DRB1*13:10						16									29										40							48																										82													95				100
DR-	DRB1*13:100																	31								40			44				48											62		64													82															97		
DR-	DRB1*13:101/216/219																								39																			62										73					82						88											100
DR-	DRB1*13:103						16			19						29										40		43					48											62																											94					
DR-	DRB1*13:104						16			19						29												43					48									59		62															82													94					
DR-	DRB1*13:107						16			19																40		43					48											62	63														82																	
DR-	DRB1*13:108																								39	40																				64													82						88							95		97		
DR13, DR-	DRB1*13:11:01/150						16																			40							48													64													82													95		97		
DR13	DRB1*13:11:02																									40					46		48													64													82													95		97		
DR-	DRB1*13:111						16									29										40							48					53																					82												94	95				
DR-	DRB1*13:114						16									29										40							48																										82												94	95				
DR-	DRB1*13:116						16	17																		40		43																						68															88							95				
DR-	DRB1*13:119			11			16									29										40							48				52						60	62															82		84															
DR-, DR13	DRB1*13:12:01~12:04/118																								39	40						47												62										73					82						88									97		
DR-	DRB1*13:120															29									39	40																		62										73					82						88											100
DR-	DRB1*13:129						16							26		29																	48															66											82													95				
DR13	DRB1*13:13																								39	40						47					52							62															82						88											
DR-	DRB1*13:132						16										30									40							48											62		64													82															97		
DR-	DRB1*13:133																								39	40																		62										73					82						88											
DR-	DRB1*13:134			11																					39	40																	60	62										73					82						88									97		
DR-	DRB1*13:135/182						16	17		19																40		43																62	63														82						88											
DR-	DRB1*13:139									19						29									39	40		43					48											62										73					82												94					
DR-, DR13	DRB1*13:14:01/14:03/50:01/62/136						16																			40							48											62		64													82															97		
DR13, DR-	DRB1*13:14:02/229																									40					46		48											62		64													82															97		
DR-	DRB1*13:144						16							26		29																	48	49			52									64													82													95				
DR-	DRB1*13:146						16									29										40		43					48				52																						82												94	95				

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name ______________ Sample ID ______________

DRB1 Locus

Serology Equivalent	DRB1 Locus Allele Group	004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)																																																																														
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
DR-	DRB1*13:149						16	17																		40																	60																82						88							95				
DR-	DRB1*13:15						16									29												43					48									59																	82												94	95				
DR-	DRB1*13:154																								39	40						47	48				52							62															82																	
DR-	DRB1*13:155/225						16			19																40		43					48											62															82												94					
DR-	DRB1*13:156						16									29										40						47	48	49			52																						82													95				
DR-	DRB1*13:157						16									29										40						47	48											62															82															97		
DR-	DRB1*13:158						16									29										40							48				52							62		64													82		84															
DR-	DRB1*13:159					14		17		19	21					29										40		43																62															82						88						94					
DR13	DRB1*13:16						16									29										40		43					48																										82												94				98	
DR-	DRB1*13:160/183/299						16									29										40		43					48																																						94	95				
DR-	DRB1*13:161																								39	40						47												62										73					82															97		
DR-	DRB1*13:162																	31								40		43	44				48																										82													95				
DR-	DRB1*13:163															29										40						47	48								57																		82			85														
DR-	DRB1*13:164																								39	40											52									64													82						88							95				
DR-	DRB1*13:167																								39	40																		62															82						88											100
DR-	DRB1*13:169																								39	40							48													64													82													95		97		
DR13	DRB1*13:17						16																			40		43					48																	68																							95				
DR-	DRB1*13:170						16									29										40							48											62															82																	100
DR-	DRB1*13:172						16																			40							48											62															82																	100
DR-	DRB1*13:175						16																			40		43					48												63					68														87								95				
DR-	DRB1*13:176						16							26		29																	48																										82													95				100
DR-	DRB1*13:179					14				19	21					29										40		43					48											62															82												94					
DR13	DRB1*13:18						16									29										40							48	49			52									64													82													95				
DR-	DRB1*13:180																	31								40																	60	62															82						88											100
DR-	DRB1*13:181															29										40						47	48								57																		82													95				
DR-	DRB1*13:188																		32						39	40																		62															82						88											100
DR-	DRB1*13:189						16									29										40																		62		64													82						88									97		
DR13	DRB1*13:19						16	17																				43														59			63														82						88							95				
DR-	DRB1*13:191					14		17			21					29										40		43																															82						88						94	95				
DR-, DR6	DRB1*13:193; DRB1*14:17						16									29										40							48																							75			82				86									95				
DR-	DRB1*13:196						16									29										40							48											62															82									91	92							
DR-	DRB1*13:198						16	17		19						29												43														59		62															82						88						94					
DR13	DRB1*13:20						16									29										40							48										60																82												94	95				
DR-	DRB1*13:203						16									29										40							48											62															82															97		
DR-	DRB1*13:206; DRB1*14:221						16												32							40							48																							75			82													95				
DR-	DRB1*13:21:01~21:02																								39	40							48											62		64								73					82															97		
DR-	DRB1*13:214						16									29										40		43					48																	68														87							94	95				
DR-	DRB1*13:217					14					21					29										40		43					48																										82												94	95				
DR13	DRB1*13:22:02																									40		43			46		48																										82													95				
DR-	DRB1*13:228																									40						47												62															82						88									97		
DR-	DRB1*13:23:01~23:02/34/97:02/124/250						16			19																40		43					48											62															82																	
DR-	DRB1*13:231			11			16																			40																	60																82						88							95		97		
DR-	DRB1*13:232						16																			40											52							62	63	64													82		84				88											
DR-	DRB1*13:235			11			16									29																										59	60	62															82						88									97		
DR-	DRB1*13:24						16																			40							48					53																					82													95				
DR-	DRB1*13:242:01~242:02						16									29										40		43					48																										82			85									94					
DR-	DRB1*13:246																									40					46															64													82						88							95		97		
DR-	DRB1*13:247						16			19																40							48					53						62															82																	
DR-	DRB1*13:248						16									29										40		43					48																															87							94	95				
DR-	DRB1*13:25/224			11			16																			40							48										60	62															82															97		
DR-	DRB1*13:26:01															29															46										57	59		62		64													82						88											
DR-	DRB1*13:26:02						16									29																										59		62		64													82						88									97		
DR-	DRB1*13:260															29		31								40		43					48																										82												94	95				
DR-	DRB1*13:276																								39	40							48																										82													95				

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name ____________________ Sample ID ______________

DRB1 Locus

		004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)																																																																											
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
Serology Equivalent	**DRB1 Locus Allele Group**																																																																											
DR-	DRB1*13:277						16							26		29																	48											62		64													82															97		
DR-	DRB1*13:284						16																			40							48													64													82			85												97		
DR-	DRB1*13:286						16																			40							48				52							62		64													82		84															
DR13	DRB1*13:29						16			19						29										40							48										60	62															82													94					
DR-	DRB1*13:292						16			19						29										40		43																62															82													94					
DR"Blank"	DRB1*13:295N																								39	40						47												62										73					82						88											
DR-	DRB1*13:30																								39	40						47	48											62										73					82															97		
DR-	DRB1*13:302						16									29			32							40							48											62		64													82																	
DR-	DRB1*13:31									19						29		31								40		43					48											62															82													94					
DR-	DRB1*13:32							17								29									39	40		43																															82						88						94	95				
DR13	DRB1*13:36						16	17		19						29										40		43																62															82						88						94					
DR-	DRB1*13:37						16																			40																		62															82						88											100
DR-	DRB1*13:38							17		19															39	40		43																62										73					82						88											
DR-	DRB1*13:40/262						16	17								29										40		43																															82						88						94	95				
DR-	DRB1*13:41						16			19				26		29												43					48											62															82													94					
DR13	DRB1*13:42:01						16									29										40							48													64													82													95		97		
DR13	DRB1*13:42:02						16									29										40							48								57					64													82													95				
DR-	DRB1*13:43					14					21					29										40							48										60																82												94	95				
DR-	DRB1*13:44						16																			40							48																							75			82				86									95				
DR-	DRB1*13:45					14				19	21															40		43					48											62															82																	
DR-	DRB1*13:46																	31								40							48											62		64													82															97		
DR-	DRB1*13:47						16																			40											52							62		64													82		84				88											
DR-	DRB1*13:48							17																	39	40		43																															82						88							95				
DR-	DRB1*13:49																								39	40																		62		64								73					82						88									97		
DR13	DRB1*13:52						16										30									40		43					48																										82													95				
DR-	DRB1*13:53						16	17								29												43														59																	82						88						94	95				
DR14	DRB1*13:54																	31								40			44				48					53																					82													95				
DR-	DRB1*13:55																								39	40											52							62		64													82						88											
DR-	DRB1*13:56			11			16									29										40							48										60	62															82															97		
DR13	DRB1*13:57						16																					43					48									59			63														82													95				
DR-	DRB1*13:58																								39	40						47																											82			85			88									97		
DR-	DRB1*13:60			11																						40					46										57		60	62															82						88											
DR-	DRB1*13:63						16			19						29										40							48					53						62															82												94					
DR-	DRB1*13:65							17		19						29									39	40		43																62										73					82						88						94					
DR13	DRB1*13:66:01~66:02																								39	40							48											62										73					82																	100
DR-	DRB1*13:70/84						16	17																		40		43																															82						88							95				
DR-	DRB1*13:71						16							26		29																	48										60																82												94	95				
DR-	DRB1*13:72							17																		40		43																	63														82						88					93		95				
DR-	DRB1*13:75																								39	40							48					53																					82													95				
DR-	DRB1*13:76						16	17											32							40		43																	63														82						88							95				
DR-	DRB1*13:77															29		31								40			44			47	48								57																		82													95				
DR-	DRB1*13:78															29										40							48										60																82												94	95				
DR-	DRB1*13:79/127															29										40		43					48																										82												94	95				
DR-	DRB1*13:81																								39	40																																	82			85			88											100
DR-	DRB1*13:82						16																			40						47	48											62															82															97		
DR-	DRB1*13:83						16																			40		43					48												63														82													95				
DR-	DRB1*13:85						16									29																										59		62															82						88											100
DR-	DRB1*13:86						16		18																								48											62												75			82				86													
DR-	DRB1*13:88																								39	40																	60	62										73					82						88											100
DR-	DRB1*13:89:01~89:02/94:01~94:02																								39	40																																	82						88							95				100
DR-	DRB1*13:90/122																									40																		62															82						88											100
DR-	DRB1*13:91/259						16																			40		43					48																										82												94	95				
DR-	DRB1*13:93															29									39	40		43					48																										82												94	95				
DR-	DRB1*13:97:01						16			19							30									40		43					48											62															82																	

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name _____ Sample ID _____

DRB1 Locus

Reaction Results (mark positive locations)

Serology Equivalent	DRB1 Locus Allele Group	004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
	Cut Off Value	15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
DR14, DR-	DRB1*14:01:01~01:02/01:04~01:05/54:01:01~54:01:05/54:04~54:07/54:09~54:10/60/75/86/88/90/112~114/117~118/122/125/131/139/142/149/151/153/157~158/163/168/184/189~192/202/204/207/213/215~217/219					14					21						32							40																			63													80	82						88							95				
DR14, DR-, DR"Blank"	DRB1*14:01:03/58/92N/97/110/162/185/193					14					21								32							40																															80	82						88							95				
DR14, DR-	DRB1*14:02:01:01~02:07/02:09/47/194/198/209						16		18							29																									59		62											75			82				86		88											
DR14	DRB1*14:02:08						16									29																										59													75			82				86		88											
DR1403, DR-	DRB1*14:03:01/98/135/223			11			16									29																					52					59	60	62														82		84				88											
DR1403	DRB1*14:03:02			11			16									29																					52					59	60	62														82		84															
DR1404, DR-	DRB1*14:04:01:01~04:07/120/145/180/196/201/224				13	14					21								32							40																			63					68							80						87	88							95				
DR14, DR-	DRB1*14:05:01:01~05:01:02/05:03~05:05/23:03/45/96/103																		32							40																			63												80	82						88					93		95				
DR14, DR-	DRB1*14:05:02/23:01						16												32							40																			63												80	82						88							95				
DR14, DR-	DRB1*14:06:01~06:02/06:04/108/165/176/212						16									29																									59													75			82				86		88							95				
DR14	DRB1*14:06:03															29																										59													75			82				86		88					93		95				
DR14	DRB1*14:07:01~07:02					14					21								32							40																		62	63												80	82						88							95				
DR14, DR-	DRB1*14:08/211					14													32							40																			63												80	82						88							95				
DR-	DRB1*14:09						16		18							29										40																		62											75			82				86		88											
DR14	DRB1*14:10					14					21								32							40																			63												80							88	89						95				
DR-	DRB1*14:102			11			16																														52						60	62														82		84				88											
DR-	DRB1*14:105					14					21															40																			63	64													82							88							95		97		
DR-	DRB1*14:106						16									29			32																							59													75			82						88							95				
DR-	DRB1*14:107				13	14					21													38		40																			63					68													87	88						95				
DR-	DRB1*14:109															29																										59		62													82							88			91	92						
DR14	DRB1*14:11														28				32							40				45															63					68	69						80						87	88						95				
DR-	DRB1*14:111					14					21													38		40																			63														82							88							95				
DR-	DRB1*14:115			11												29																					52					59	60	62														82		84				88											
DR-	DRB1*14:116			11			16																			40											52						60	62														82		84				88											
DR-	DRB1*14:119					14			18		21															40																			62	63											75			82			86		88											
DR14	DRB1*14:12:01~12:02			11			16									29																		49			52					59	60														82							88							95				
DR-	DRB1*14:123						16																			40																			63													82							88							95				
DR-	DRB1*14:126:01						16												32							40																			63					68							80						87	88							95				
DR-	DRB1*14:126:02																		32							40					46													63					68							80						87	88							95				
DR-	DRB1*14:128					14					21															40							48														64									82															95		97		
DR-	DRB1*14:129/150					14					21								32							40																			63												80	82													95				
DR14	DRB1*14:13								18							29									39																	59		62									73		75			82	83			86		88											
DR-	DRB1*14:132					14					21			26		29			32													48																									80	82													95				
DR-	DRB1*14:133					14					21					29			32							40																															80	82						88							95				
DR-	DRB1*14:134						16									29			32							40							48											62													80	82																
DR-	DRB1*14:136																									40											52								63													82							88					93		95				
DR"Blank", DR-	DRB1*14:137N/203					14					21								32							40																			63													82							88							95				
DR-	DRB1*14:138				13	14					21								32							40							48													63					68							80						87								95				
DR14, DR-	DRB1*14:14/36						16												32							40																	62	63													80	82						88											
DR-	DRB1*14:143					14					21								32							40																		62	63												80							88	89										
DR-	DRB1*14:144			11			16									29										40											52						60	62														82		84				88											
DR-	DRB1*14:146					14					21								32							40																			63											75			82						88							95				
DR-	DRB1*14:148/205																		32							40																			63					68							80						87	88							95				
DR8	DRB1*14:15						16																			40								49			52								63	64					68													87	88							95				

One Lambda, Inc. 22801 Roscoe Blvd., West Hills, CA 91304 Tel: (747) 494-1000 Fax: (747) 494-1001 www.onelambda.com

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name ____________________

Sample ID ____________________

DRB1 Locus

Serology Equivalent	DRB1 Locus Allele Group	004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)																																																																														
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
DR"Blank"	DRB1*14:152N				13	14					21								32							40																			63					68														87	88							95				
DR-	DRB1*14:155						16												32																										63													80	82						88							95				
DR-	DRB1*14:156			11			16										30																	49			52					59	60																82						88							95				
DR-	DRB1*14:159						16		18								30																									59		62												75			82				86		88											
DR6	DRB1*14:16					14		17			21															40		43																	63														82						88							95				
DR-	DRB1*14:160																30		32																							59																80	82						88					93		95				
DR-	DRB1*14:161		6																32							40																																80	82						88					93		95				
DR-	DRB1*14:164					14					21															40											52							62	63														82						88											
DR-	DRB1*14:169																		32						39	40																			63													80	82						88							95				
DR-	DRB1*14:170															29									39																	59														75			82	83			86		88							95				
DR-	DRB1*14:171					14					21													38		40																			63														82						88							95	96			
DR-	DRB1*14:173			11		14					21															40											52						60		63														82						88							95				
DR-	DRB1*14:174			11												29		31																			52					59	60	62															82						88											
DR-	DRB1*14:175						16												32							40							48												63					68								80						87								95				
DR-	DRB1*14:177															29		31											44													59														75			82				86		88							95				
DR-	DRB1*14:179						16		18					26		29																	48											62												75			82				86													
DR-, DR6	DRB1*14:18/154															29			32																							59																80	82						88					93		95				
DR-	DRB1*14:181			11			16										30																				52					59	60	62															82		84				88											
DR-	DRB1*14:182					14					21															40																			63																				88	89						95				
DR-	DRB1*14:183						16																																																	75			82				86		88							95				
DR-	DRB1*14:186					14					21								32							40							48																									80	82													95				
DR-	DRB1*14:187																		32							40							48												63													80	82											93		95				
DR"Blank"	DRB1*14:188N																		32							40																			63													80							88					93		95				
DR14	DRB1*14:19						16									29																										59		62															82						88			91	92							
DR"Blank"	DRB1*14:195N															29																										59														75			82				86		88							95				
DR14	DRB1*14:20						16																																			59			63											75			82				86		88							95				
DR-	DRB1*14:200					14			18		21					29																										59		62												75			82				86		88											
DR-	DRB1*14:206				13	14					21								32							40																								68								80						87	88							95				
DR-	DRB1*14:208					14					21															40							48											62															82																	
DR14	DRB1*14:21						16									29										40							48																										82									91	92			95				
DR-	DRB1*14:210Q				13	14					21								32																										63					68								80						87	88							95				
DR14	DRB1*14:22					14					21															40																		62	63	64													82						88									97		
DR-	DRB1*14:220				13	14					21								32							40																			63					68								80						87								95				
DR"Blank"	DRB1*14:222N			11												29																					52					59	60	62															82						88											
DR-	DRB1*14:23:02/54:02/62/101/ 130/147/178																		32							40																			63													80	82						88							95				
DR-	DRB1*14:23:04																		32							40					46														63													80	82						88							95				
DR-	DRB1*14:24						16									29																										59		62				66	67										82						88											
DR-	DRB1*14:25:01~25:02					14					21															40																		62		64													82						88									97		
DR-, DR"Blank", DR14	DRB1*14:26/54:03/70/124/166N/ 214					14					21								32																										63													80	82						88							95				
DR14	DRB1*14:27:01~27:02						16									29																					52					59		62		64													82		84				88											
DR-	DRB1*14:28				13	14					21								32							40																			63					68								80				85		87	88											
DR14	DRB1*14:29						16									29																										59														75			82			85	86		88											
DR-	DRB1*14:30						16		18							29										40							48											62												75			82				86													
DR-	DRB1*14:31				13	14					21															40																			63					68														87	88							95				
DR-, DR"Blank"	DRB1*14:32:01~32:03/104/197N					14					21															40																			63														82						88							95				
DR-	DRB1*14:33						16									29			32							40							48																							75			82													95				
DR-	DRB1*14:34					14																				40																			63														82						88							95				
DR-	DRB1*14:35					14					21								32							40							48												63													80	82													95				
DR-	DRB1*14:37																									40																			63			66											82						88					93		95				
DR-	DRB1*14:38:01~38:02/87/172					14					21															40																			63													80	82						88							95				
DR-	DRB1*14:39/54:08/140/199					14					21								32							40																			63													80							88							95				
DR-	DRB1*14:40			11			16																														52					59	60	62	63														82		84				88											
DR-	DRB1*14:41/94						16		18																																	59		62												75			82				86		88											

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name _____ Sample ID _____

DRB1 Locus

Reaction Results (mark positive locations)

Serology Equivalent	DRB1 Locus Allele Group	004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
DR-	DRB1*14:42						16												32							40							48											62													80	82																		
DR-	DRB1*14:43/127:01~127:02																									40																			63											80	82						88					93		95					
DR-	DRB1*14:44:01~44:03																		32							40																		62	63											80	82						88					93							
DR-	DRB1*14:48								18							29		31											44													59		62										75			82				86		88												
DR14	DRB1*14:49					14			18		21																															59		62	63										75			82				86		88												
DR14	DRB1*14:50				13	14					21															40																			63					68							80						87	88							95					
DR-	DRB1*14:51						16		18							29			32																							59		62										75			82						88												
DR-	DRB1*14:52						16									29																										59								68					75							86	87	88						95					
DR13	DRB1*14:53					14					21															40							48											62		64												82															97			
DR-	DRB1*14:55					14					21															40											52								63													82							88							95					
DR-	DRB1*14:56/100																									40																			63													82							88					93		95					
DR-	DRB1*14:57							17																		40		43																	63																				88	89						95					
DR-	DRB1*14:59						16									29			32							40																															80	82						88							95					
DR-	DRB1*14:61				13	14					21								32							40																			63													80						87	88							95					
DR-	DRB1*14:63															29									39						47					52					59		62														82							88												
DR-	DRB1*14:64															29			32							40							48																								80	82													95					
DR-	DRB1*14:65																								39	40							48												63														82													95					
DR-	DRB1*14:67						16									29																47					52					59		62														82		84					88												
DR-	DRB1*14:68:01~68:02				13	14					21								32							40																		62	63					68							80						87	88												
DR-	DRB1*14:69			11		14					21															40																	60	62														82							88									97			
DR-	DRB1*14:71				13	14					21								32							40																			63					68							80						87	88												
DR-	DRB1*14:72																		32							40							48												63													80	82													95					
DR-	DRB1*14:73				13	14					21								32							40																			63	64				68														87	88							95					
DR-	DRB1*14:74			11		14					21															40																	60		63														82							88							95		97			
DR-	DRB1*14:76																							38		40																			63					68														87	88							95	96				
DR-	DRB1*14:77/218			11			16																														52					59	60	62														82		84					88												
DR-	DRB1*14:78															29									39						47					52					59																82							88							95					
DR-	DRB1*14:79				13	14					21													38		40																			63					68														87	88							95	96				
DR-	DRB1*14:80						16									29										40																													75			82				86		88							95					
DR-	DRB1*14:81						16									29																										59															82							88							95					
DR-	DRB1*14:82					14					21			26					32																										63													80	82						88							95					
DR-	DRB1*14:83/121						16									29																																						75			82				86		88							95					
DR-	DRB1*14:84			11			16																			40								49			52						60		63														82							88							95					
DR-	DRB1*14:85			11												29									39											52					59	60	62														82							88												
DR-	DRB1*14:89						16		18							29																					52					59		62										75			82							88												
DR-	DRB1*14:91/167																		32							40																															80	82						88					93		95					
DR-	DRB1*14:93				13	14					21															40																			62	63					68							80						87	88												
DR-	DRB1*14:95						16							26		29			32														48																									80	82													95					
DR-	DRB1*14:99					14					21								32							40																			63													80	82			85			88												
DR15, DR-, DR"Blank"	DRB1*15:01:01:01~01:01:05/ 01:03/01:05/01:07~01:17/01:19~ 01:20/01:25/01:27/01:29~01:32/ 01:34~01:42/13/16/20/22/32/36~ 37:02/41~43/46/51~53/55~56/61~ 62/64~65/67/75~76/79/83/85~86/ 90~93/95/97~98/102/106~108/ 111~112/114/121/123~124/127/ 129N/132~134N/138N/141/144~ 146/148N/151/153/160/164Q/166/ 168/171:01~171:02/173~174/177/ 180N/182/184/186																									40					46		48							54							66																													95					
DR15, DR-	DRB1*15:01:02/02:14/02:16/87/ 169~170																									40					46		48							54							66																												
DR15	DRB1*15:01:04						16																			40							48							54							66																									95					

One Lambda, Inc. 22801 Roscoe Blvd., West Hills, CA 91304 Tel: (747) 494-1000 Fax: (747) 494-1001 www.onelambda.com

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name

Sample ID

DRB1 Locus

		004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Reaction Results (mark positive locations)																																																																														
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
Serology Equivalent	**DRB1 Locus Allele Group**																																																																													
DR15, DR-, DR"Blank"	DRB1*15:01:06/01:18/01:21/01:24/45/71/128/162/176N																								40							48						54									66																								95				
DR15, DR"Blank", DR-	DRB1*15:01:22/28/33/40/69/82/113N/116																								40					46		48															66																								95				
DR15, DR-, DR"Blank"	DRB1*15:01:23/04~05/18/49~50N/70/89/147/157~158																								40					46		48						54																																	95				
DR15, DR"Blank", DR-	DRB1*15:01:26/01:28/01:33/24/72/81/137N/181																													46		48						54									66																								95				
DR15, DR2, DR-, DR"Blank"	DRB1*15:02:01:01~02:01:05/02:03~02:04/02:06/02:08~02:09/02:11~02:13/02:17/02:19/08/14/26/44/47/60/80N/101/104:01/104:03/126/131/140/149/152/154N/156/159N/179																								40					46		48						54					62				66	67																											
DR15, DR-	DRB1*15:02:02/02:05/02:15/104:02						16																		40							48						54					62				66	67																											
DR15, DR-	DRB1*15:02:07/15:01~15:02/31:01																								40					46		48						54					62					67																											
DR15, DR-	DRB1*15:02:10/68/118/155																								40					46								54					62				66	67																											
DR15	DRB1*15:02:18						16																		40													54					62				66	67																											
DR15, DR"Blank", DR-	DRB1*15:03:01:01~03:05/57/163N/165/178/185																									42				46		48						54									66																								95				
DR15, DR-, DR"Blank"	DRB1*15:06:01~06:04/09/48/59/77/125/136/143/175/183N																								40					46								54									66																								95				
DR15	DRB1*15:07:01																								40					46								54									66																	88							95				
DR15	DRB1*15:07:02						16																		40													54									66																	88							95				
DR15	DRB1*15:07:03																								40													54									66																	88					93		95				
DR-	DRB1*15:10																								40		43			46		48						54																																	95				
DR-	DRB1*15:100										22														40					46		48						54																																	95				
DR-	DRB1*15:103						16																		40							48						54					62																									92							
DR-	DRB1*15:109													28											40							48						54									66			69																					95				
DR-, DR"Blank"	DRB1*15:11:01/115N																								40					46								54					62				66	67																88											
DR-	DRB1*15:11:02						16																		40													54					62				66	67																88											
DR-	DRB1*15:117																		32							40					46		48						54																																	95				
DR-	DRB1*15:119																		32							40					46		48						54					62				66	67																											
DR-	DRB1*15:12																							39	40							48						54									66																								95				
DR-	DRB1*15:135																	31								40							48						54									66																								95				
DR-	DRB1*15:15:03/31:02						16																		40							48						54					62					67																											
DR-	DRB1*15:167																								40					46		48						54					62	63			66	67																											
DR-	DRB1*15:172															30										40					46		48						54									66																								95				
DR"Blank"	DRB1*15:17N																								40					46	47	48						54																																	95				
DR-	DRB1*15:21																								40					46	47	48				52		54																																	95				
DR-	DRB1*15:23/142																									42				46		48						54																																	95				
DR-	DRB1*15:25										22												38		40					46		48						54																																	95	96			
DR-	DRB1*15:27/122								18																40					46		48						54					62												75								86													
DR-	DRB1*15:29~30/38~39																								40							48						54					62				66	67																											
DR-	DRB1*15:34								18																40					46								54					62												75								86		88											
DR-	DRB1*15:35																								40					46		48						54									66														85															
DR-	DRB1*15:54																									42				46		48						54																75								86										95				
DR-	DRB1*15:58																													46		48						54					62				66	67																											
DR-	DRB1*15:63																								40							48						54					62					67																											
DR-	DRB1*15:66:01																								40					46		48						54																75								86										95				
DR-	DRB1*15:66:02						16																		40							48						54																75								86										95				
DR-	DRB1*15:73																								40					46								54																																	95				
DR-	DRB1*15:78																									42				46		48						54					62				66	67																											

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LABType™ SSO Class II DRB1 Typing Test, Lot #020

Name _____ Sample ID _____

DRB1 Locus

Reaction Results (mark positive locations)

Serology Equivalent	DRB1 Locus Allele Group	004	006	011	013	014	016	017	018	019	021	022	025	026	028	029	030	031	032	033	034	035	036	038	039	040	042	043	044	045	046	047	048	049	050	051	052	053	054	055	057	059	060	062	063	064	065	066	067	068	069	070	072	073	074	075	076	080	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	100
Cut Off Value		15%	11%	40%	11%	20%	30%	27%	20%	50%	25%	15%	18%	12%	35%	23%	15%	25%	24%	25%	100%	2%	40%	19%	25%	15%	12%	45%	30%	40%	45%	10%	10%	25%	18%	20%	55%	35%	55%	30%	30%	9%	35%	45%	18%	20%	35%	50%	30%	25%	45%	20%	50%	24%	30%	50%	50%	45%	45%	30%	24%	50%	35%	25%	35%	40%	35%	25%	35%	25%	20%	20%	30%	20%	15%	50%
DR-	DRB1*15:84/120																									40					46		48						54																												92			95				
DR-	DRB1*15:88																									40					46								54																											88						95				
DR-	DRB1*15:94/130																										42				46								54									66																							95				
DR-	DRB1*15:96																									40					46								54									66														85			88										
DR-	DRB1*15:99														28											40							48						54					62				66	67		69																								
DR16, DR"Blank", DR-	DRB1*16:01:01/01:03/01:06/ 01:08/01:10/01:12~01:16/13N/ 25/28/30/32/42/45/49/51/54/ 59Q~61/63N																									40					46								54		57			62		64																								88										
DR16	DRB1*16:01:02																									40					46								54					62		64																								88							97			
DR16, DR"Blank"	DRB1*16:01:04/01:11/55N																									40					46								54					62		64																								88										
DR16	DRB1*16:01:05						16																			40													54		57			62		64																								88										
DR16, DR-	DRB1*16:01:07/24																									40					46								54		57					64																								88										
DR16	DRB1*16:01:09																									40					46										57			62		64																								88										
DR16, DR-, DR"Blank"	DRB1*16:02:01:01~02:01:04/ 02:03/02:05/02:07~02:09/17/19~ 20/29/31/35/41N/43/46/48/52/ 57/62N/64~65			11																						40					46								54		57		60	62																													88										
DR16	DRB1*16:02:02			11																						40					46								54				60	62																									88							97			
DR16, DR"Blank"	DRB1*16:02:04/21N			11																						40					46								54		57		60	62																									88										
DR16	DRB1*16:02:06			11			16																			40													54		57		60	62																									88										
DR2, DR16, DR-	DRB1*16:03/05:02/50																									40					46								54					62																								88										
DR16	DRB1*16:04:01~04:02																									40					46						52		54					62		64																								88										
DR16	DRB1*16:05:01																									40					46	47							54		57			62																									88										
DR-	DRB1*16:07																														46	47							54		57			62																									88										
DR-	DRB1*16:08															29										40					46								54		57			62		64																								88										
DR16	DRB1*16:09:01~09:02																									40					46		48						54		57			62		64																															
DR-	DRB1*16:10:01			11																						40					46		48						54		57		60	62																																	
DR-	DRB1*16:10:02			11			16																			40							48						54		57		60	62																																	
DR-	DRB1*16:11~12			11																						40					46										57		60	62																									88										
DR-	DRB1*16:14			11																						40													54		57		60	62																									88										
DR-	DRB1*16:15																									40					46								54		57					64																								88						95				
DR-	DRB1*16:16			11											28											40				45									54		57		60	62							69																		88										
DR-	DRB1*16:18			11																						40					46						52		54				60	62																									88										
DR-	DRB1*16:23			11																						40					46								54		57		60																										88						95				
DR-	DRB1*16:26																									40					46								54		57			62																									88										
DR-	DRB1*16:27														28											40				45									54		57			62		64					69																		88		90								
DR-	DRB1*16:33																									40					46		48						54		57					64																											95				
DR-	DRB1*16:34																									40					46								54		57					64														85			88										
DR-	DRB1*16:36			11																						40					46								54		57		60																													95				
DR-	DRB1*16:37			11																						40					46								54		57		60	62																																	
DR-	DRB1*16:38:01~38:02			11																						40					46								54		57		60																				85			88										
DR-	DRB1*16:40			11																						40					46								54				60	62																									88										
DR-	DRB1*16:44/56																									40					46								54		57			62		64																															
DR-	DRB1*16:47																									40													54		57			62		64																								88										
DR-	DRB1*16:53			11																						40					46								54		57		60																										88								98		
DR-	DRB1*16:58			11																						40					46		48						54		57		60																													95				
DR-	DRB3*01:14													26				31						38					44															62														82								88										
DR-	DRB4*01:97/125																		32												46																										80													95				

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LABScreen® Single Antigen HLA Class I - Combi, Lot 010

Cat. #LS1A04

Name ☐ Male ☐ Female

Patient HLA Typing

Donor HLA Typing Date Collected

PRA

$\frac{\text{\# Pos. Reactions}}{\text{\# Valid Reations}}$ x 100 = PRA

Changes from Previous Lot: The PC bead values on average are ~30% lower than the previous lot. This does not affect the performance of any other beads in the assay. No changes in antigen panel. Replace beads ID #15 through # 39 with beads ID #14 through #38, bead ID #60 with bead ID #63, and bead ID #63 with bead ID #60.

Changes from Previous Revision: N/A

	Bead ID	Antigen ID	Molecular Typing	Serological Typing	W6/32	Results
1	1	NC	NA	N/A	203	
2	2	PC	NA	N/A	333	
3	3	RA0101	A*01:01	A1	24434	
4	4	RA0201	A*02:01	A2	24665	
5	5	RA0203	A*02:03	A2	24932	
6	6	RA0206	A*02:06	A2	23876	
7	7	RA0301	A*03:01	A3	24459	
8	8	RA1101	A*11:01	A11	23988	
9	9	RA1102	A*11:02	A11	24770	
10	10	RA2301	A*23:01	A23	24685	
11	11	RA2402	A*24:02	A24	24811	
12	12	RA2403	A*24:03	A24	24442	
13	13	RA2501	A*25:01	A25	24173	
14	14	RA2601	A*26:01	A26	23748	
15	15	RA2901	A*29:01	A29	23985	
16	16	RB2705	B*27:05	B27 BW4	23923	
17	17	RA2902	A*29:02	A29	24555	
18	18	RA3001	A*30:01	A30	24406	
19	19	RA3002	A*30:02	A30	24175	
20	20	RA3101	A*31:01	A31	24419	
21	21	RA3201	A*32:01	A32	24049	
22	22	RA3301	A*33:01	A33	23746	
23	23	RA3401	A*34:01	A34	23767	
24	24	RA3402	A*34:02	A34	24435	
25	25	RA3601	A*36:01	A36	23651	
26	26	RA4301	A*43:01	A43	24331	
27	27	RA6601	A*66:01	A66	24291	
28	28	RA6602	A*66:02	A66	24049	
29	29	RA6801	A*68:01	A68	23950	
30	30	RA6802	A*68:02	A68	24110	
31	31	RA6901	A*69:01	A69	23390	
32	32	RA7401	A*74:01	A74	24378	
33	33	RA8001	A*80:01	A80	23512	
34	34	RB0702	B*07:02	B7 BW6	24297	
35	35	RB0801	B*08:01	B8 BW6	24608	
36	36	RB1302	B*13:02	B13 BW4	24156	
37	37	RB1401	B*14:01	B64 BW6	23958	
38	38	RB1402	B*14:02	B65 BW6	23530	
39	40	RB1501	B*15:01	B62 BW6	24063	
40	41	RB1502	B*15:02	B75 BW6	24083	
41	42	RB1503	B*15:03	B72 BW6	24237	
42	43	RB1510	B*15:10	B71 BW6	24243	
43	44	RB1512	B*15:12	B76 BW6	24689	
44	45	RB1513	B*15:13	B77 BW4	22883	
45	46	RB1516	B*15:16	B63 BW4	23950	
46	47	RB1801	B*18:01	B18 BW6	25093	
47	48	RB2708	B*27:08	B27 BW6	24368	
48	49	RB3501	B*35:01	B35 BW6	23777	
49	50	RB3701	B*37:01	B37 BW4	24454	
50	51	RB3801	B*38:01	B38 BW4	24313	

Antigen Distribution

Ag	#	Ag	#
A1	1	B53	1
A2	3	B54	1
A3	1	B55	1
A11	2	B56	1
A23	1	B57	2
A24	2	B58	1
A25	1	B59	1
A26	1	B60	1
A29	2	B61	2
A30	2	B62	1
A31	1	B63	1
A32	1	B64	1
A33	2	B65	1
A34	2	B67	1
A36	1	B71	1
A43	1	B72	1
A66	2	B73	1
A68	2	B75	2
A69	1	B76	1
A74	1	B77	1
A80	1	B78	1
B7	1	B81	1
B8	1	B82	1
B13	2	BW4	19
B18	1	BW6	31
B27	2	Cw1	1
B35	1	Cw2	1
B37	1	Cw4	1
B38	1	Cw5	1
B39	1	Cw6	1
B41	1	Cw7	1
B42	1	Cw8	1
B44	2	Cw12	1
B45	1	Cw14	1
B46	1	Cw15	1
B47	1	Cw16	1
B48	1	Cw17	1
B49	1	Cw18	1
B50	1	Cw9	1
B51	2	Cw10	2
B52	1		

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LABScreen® Single Antigen HLA Class I - Combi, Lot 010

Cat. #LS1A04

Name ☐ Male ☐ Female

Patient HLA Typing

Donor HLA Typing Date Collected

PRA

$\frac{\text{\# Pos. Reactions}}{\text{\# Valid Reations}}$ x 100 = PRA

Changes from Previous Lot: The PC bead values on average are ~30% lower than the previous lot. This does not affect the performance of any other beads in the assay. No changes in antigen panel. Replace beads ID #15 through # 39 with beads ID #14 through #38, bead ID #60 with bead ID #63, and bead ID #63 with bead ID #60.

Changes from Previous Revision: N/A

	Bead ID	Antigen ID	Molecular Typing	Serological Typing	W6/32	Results
51	52	RB3901	B*39:01	B39 BW6	24508	
52	53	RB4001	B*40:01	B60 BW6	24098	
53	54	RB4002	B*40:02	B61 BW6	24466	
54	55	RB4101	B*41:01	B41 BW6	23820	
55	56	RB4201	B*42:01	B42 BW6	24578	
56	57	RB4402	B*44:02	B44 BW4	22666	
57	58	RB4403	B*44:03	B44 BW4	23786	
58	59	RB4501	B*45:01	B45 BW6	23793	
59	60	RB4901	B*49:01	B49 BW4	23752	
60	61	RB4701	B*47:01	B47 BW4	22515	
61	62	RB4801	B*48:01	B48 BW6	24036	
62	63	RB4601	B*46:01	B46 BW6	24770	
63	64	RB5001	B*50:01	B50 BW6	24039	
64	65	RB5101	B*51:01	B51 BW4	23703	
65	66	RB5102	B*51:02	B51 BW4	24287	
66	67	RB5201	B*52:01	B52 BW4	23224	
67	68	RB5301	B*53:01	B53 BW4	23819	
68	69	RB5401	B*54:01	B54 BW6	24510	
69	70	RB5501	B*55:01	B55 BW6	23853	
70	71	RB5601	B*56:01	B56 BW6	24647	
71	72	RB5701	B*57:01	B57 BW4	23788	
72	73	RB5703	B*57:03	B57 BW4	24796	
73	74	RB5801	B*58:01	B58 BW4	24438	
74	75	RB5901	B*59:01	B59 BW4	22017	
75	76	RB6701	B*67:01	B67 BW6	24618	
76	77	RB7301	B*73:01	B73 BW6	24318	
77	78	RB7801	B*78:01	B78 BW6	23932	
78	79	RB8101	B*81:01	B81 BW6	24727	
79	80	RB8201	B*82:01	B82 BW6	24420	
80	81	RC0102	C*01:02	Cw1	24751	
81	82	RC0202	C*02:02	Cw2	22957	
82	83	RC0302	C*03:02	Cw10	24497	
83	84	RC0303	C*03:03	Cw9	24942	
84	85	RC0304	C*03:04	Cw10	24515	
85	86	RC0401	C*04:01	Cw4	19742	
86	87	RC0501	C*05:01	Cw5	24396	
87	88	RC0602	C*06:02	Cw6	23399	
88	89	RC0702	C*07:02	Cw7	21906	
89	90	RC0801	C*08:01	Cw8	24344	
90	91	RC1203	C*12:03	Cw12	23845	
91	92	RC1402	C*14:02	Cw14	22776	
92	93	RC1502	C*15:02	Cw15	24849	
93	94	RC1601	C*16:01	Cw16	23426	
94	95	RC1701	C*17:01	Cw17	19901	
95	96	RC1802	C*18:02	Cw18	22723	
96	97	RB1301	B*13:01	B13 BW4	23673	
97	98	RB1511	B*15:11	B75 BW6	23359	
98	99	RB4006	B*40:06	B61 BW6	23282	
99	100	RA3303	A*33:03	A33	23430	

*Trimmed mean value

Test Performed by Read by Date Reviewed by Date

One Lambda, Inc. 21001 Kittridge Street, Canoga Park, CA 91303-2801 Tel: (818) 702-0042 Fax: (818) 702-6904 www.onelambda.com

LABScreen™

REF

Catalog ID	Product Name
LS1PRA*	LABScreen™ PRA Class I
LS2PRA*	LABScreen™ PRA Class II
LS12PRA*	LABScreen™ PRA Class I & II
LSM12*	LABScreen™ Mixed Class I & II
LS1A04*	LABScreen™ Single Antigen HLA Class I - Combi
LS1ASP01*	LABScreen™ Single Antigen HLA Class I Supplement - Group 1
LS2A01*	LABScreen™ Single Antigen HLA Class II - Group 1
LS2ASP01*	LABScreen™ Single Antigen HLA Class II Supplement - Group 1
LS1AEX01*	LABScreen™ Single Antigen HLA Class I ExPlex
LS2AEX01*	LABScreen™ Single Antigen HLA Class II ExPlex
LSMICA001	LABScreen™ MICA Single Antigen - Group 1
LSPWABUF	LABScreen™ Wash Buffer

IVD In Vitro Diagnostic Medical Device.

INTENDED USE

LABScreen products are intended for use in detection of HLA antibody using flow cytometric technology

SUMMARY AND EXPLANATION

LABScreen products use microbeads coated with purified Class I or Class II HLA antigens and pre-optimized reagents for the detection of Class I or Class II HLA antibodies in human sera. LABScreen products utilize the LABScan™ 100 (Luminex® 100/200) or LABScan3D™ (Luminex® FLEXMAP 3D®) for analysis of up to 100 or 500 bead regions, respectively, in a single test.

The Mixed assay detects the presence of antibody to Class I and/or Class II HLA antigens. The PRA tests can detect antibodies and their specificities against the HLA antigens in each LABScreen panel. The Single Antigen assay allows confirmation of antibody specificity suggested by a previous PRA test, while individual Singles beads are used to focus on reactions against one or a few antigens, e.g. to compare reactivity of different serum samples from the same individual. A negative control serum is used to establish the background value for each bead in a test batch.

PRINCIPLE(S)

Test serum is incubated with LABScreen beads. Any HLA antibodies present in the test serum bind to the antigens on the beads and then are labeled with R-Phycoerythrin (PE)-conjugated goat anti-human IgG. The LABScan™ 100 or LABScan3D™ flow analyzer(s) simultaneously detects the fluorescent emission of PE and a dye signature from each bead, allowing almost real-time data acquisition. To assign PRA and HLA specificity, the reaction pattern of the test serum is compared to the lot-specific worksheet defining the antigen array.

REAGENTS

A. Identification

See LABScreen Reference Table for product description.

B. Warning or Caution

1. **Warning**: LABScreen PRA test reagents contain 0.1% sodium azide (NaN_3) as a preservative. Under acidic conditions, sodium azide yields hydrazoic acid, an extremely toxic compound. Dilute reagents containing sodium azide in running water before discarding, to avoid deposits in plumbing where explosive conditions may develop. (Refer to Material Safety Data Sheet for detail.)
2. **Warning**: All blood products should be treated as potentially infectious. Source material from which this product was derived was found negative when tested in accordance with current FDA required tests. No known test methods can offer assurance that products derived from human blood will not transmit infectious agents.
3. **Caution**: For manual flicking of trays, use a quick downward arm motion without wrist movement to prevent repetitive motion effects.
4. Refer to the Material Safety Data Sheet for detailed information.

C. Preparing Reagents for Use

1. See Directions for Use, below.
2. If buffer salts have precipitated out of solution during shipment or storage, re-dissolve by gently warming before preparing working dilution.

D. Storage Instructions

1. LABScreen products are shipped to the end user on dry ice. The entire package may be stored in a freezer at -65° C or below until first use, up to the labeled expiration date.
2. Once beads are thawed, DO NOT REFREEZE. Store at 2 - 8° C for up to three months or until the expiration date (if earlier).
3. After first use, store wash buffer at 2 - 8°C for up to three months or until the expiration date, if earlier.

E. Purification or Treatment Required for Use

See Directions for Use, below.

F. Instability Indications

None

INSTRUMENT REQUIREMENTS

A. Required Equipment

- LABScan 100 flow analyzer (Luminex® 100/200) with Luminex® XY platform (for automated 96-sample data acquisition) and sheath fluid delivery system (OLI Cat. # LABSCNXS3) OR LABScan3D flow analyzer (Luminex® FLEXMAP 3D®) with XY platform and sheath fluid delivery system (OLI Cat. # LABSCNXS4)
- Centrifuge
- Rotor for 1.5 ml microcentrifuge tube (9,300 g), or a swinging bucket rotor for 96-well microplate (1,300 g)
- Vortex mixer
- Plate shaker or rotating platform

For Filter Plate Option:

- Vacuum manifold, 96-well (Millipore Cat. # MAVM0960R or equivalent)
- Vacuum pump with a pressure less than 100 mm Hg
- Plate shaker or rotating platform

B. Equipment Calibration

Follow manufacturer's instructions for calibration of the LABScan 100 or LABScan3D flow analyzer.

C. Recommended Software

HLA Fusion™ (OLI Cat. # FUSPGR)

SPECIMEN COLLECTION AND PREPARATION

- Unopened blood specimens may be kept at room temperature up to 4 days. Separated serum (from clotted samples) or plasma (in ACD or K-EDTA) may be refrigerated up to 7 days, or aliquots may be frozen at -20°C or below and thawed just before the assay. Aggregates should be removed from the test serum/plasma by centrifugation (8,000 – 10,000 g for 10 minutes) or filtration (0.2 µm) prior to testing. Any aggregates or contamination of the sample may generate invalid results.
- Samples may be treated or diluted to reduce non-specific background or to remove inhibitory factor – see limitation section.

  Note:

  - Test serum or plasma should not be heat inactivated, because it may give a high background in the test.
  - Undiluted serum or plasma is generally used for the test. However, if a high background serum sample is diluted for this assay, the negative control serum should be tested at the same dilution.
- Diluting serum and plasma may reduce the reactivity (MFI) for the ExPlex Products.

PROCEDURE

A. Materials Provided

1. See the LABScreen Reference Table in Product Documentation on the One Lambda, Inc. web site for a list of materials provided for each product.
2. The volumes provided exceed the amount required for testing by a small amount to allow for pipetting losses.

B. Materials Required, But Not Provided

1. PE–Conjugated Goat Anti-Human IgG (OLI Cat. # LS-AB2)
2. PBS, filtered [USA Scientific Cat. # 9242 (500 ml 10X) or equivalent]
3. 1.5 ml microcentrifuge tube (USA Scientific Cat. # 1415-2500 or equivalent)
4. Pipette tips
5. Negative Control Serum, containing no HLA antibody when tested by LABScreen method (OLI Cat. # LS-NC or equivalent)

If the test is performed in a 96-well microplate:

1. 96-well microplate, 250 µl, non-treated surface (Whatman Cat. # 7701-3250 or equivalent)
2. Tray seal (OLI Cat. # SSPSEA300 or equivalent)

For the Filter Plate option:

1. Filter plate (Multiscreen-BV, Millipore Cat. No. MABVN1250 or equivalent)

C. Directions for Use

Notes:

- Take special care in the aliquoting process. Failure to follow the steps described below may result in reagent loss.
- Sections A through C indicate the volumes of reagents needed for testing a single bead group. If you are running a combined test, see Section D before proceeding.
- Turn on the LABScan 100 or LABScan3D flow analyzer at least 30 minutes before starting the assay.
- Create a filename and sample code sheet for each test tray.

I. For each test batch, test a negative control serum (e.g. OLI Cat. # LS-NC or equivalent) to establish background values. To complete the test in a 1.5 ml microcentrifuge tube

1. Mix the LABScreen beads well by gently vortexing or pipetting up and down several times prior to use.
2. Incubate 5 µl of LABScreen beads with 20 µl of test serum in a 1.5 ml micro-centrifuge tube for 30 minutes, in the dark at 20 - 25º C with gentle shaking.
3. Dilute 10X wash buffer (OLI Cat. # LSPWABUF) in distilled water to make a 1X solution.
4. Add 1 ml of 1X wash buffer to each bead/serum solution tube and vortex. Centrifuge at 9,300 g for 2 minutes. Aspirate and discard the supernatant.
5. Repeat Step 4 twice.
6. Dilute 1 µl per test of 100X PE-conjugated anti-human IgG (OLI Cat. # LS-AB2) with 99 µl of 1X wash buffer to make a 1X solution.
7. Add 100 µl of 1X PE-conjugated anti-human IgG to each tube. Vortex and then incubate in the dark for 30 minutes at 20 - 25º C with gentle shaking.
8. Repeat Step 4 twice.
9. Add 80 µl 1X PBS to each tube. Proceed to data acquisition and analysis, or store tray at 2 - 8º C in the dark for up to 24 hours before analysis.

II. To complete the test in a 96-well plate

Caution: Seal the 96-well tray carefully and completely to prevent well-to-well sample contamination by pressing the seal against each rim of the 96 wells. Do not re-use tray seals. Use a fresh seal for each step that requires application of a tray seal.

1. Mix the LABScreen beads well by gently vortexing or pipetting up and down several times prior to use.
2. Add 5 µl of LABScreen beads with 20 µl of test serum in each well of a 96-well plate, seal plate, and incubate for 30 minutes in the dark at 20 - 25º C with gentle shaking.
3. Dilute 10X wash buffer (Cat. # LSPWABUF) in distilled water to make a 1X wash solution.
4. After incubation, remove seal and add 150 µl of 1X wash buffer to each well of the plate. Cover with tray seal (OLI Cat. # SSPSEA300 or equivalent) and vortex. Centrifuge at 1,300 g for 5 minutes.
5. Remove wash buffer from wells of plate by flicking or with vacuum aspiration.
6. Add 200 µl of 1X wash buffer to each well of the plate. Cover with a new tray seal and vortex. Centrifuge at 1,300 g for 5 minutes.
7. Remove supernatant from wells of plate by flicking or with vacuum aspiration.
8. Repeat Steps 6 and 7.
9. Dilute 1 µl per test of 100X PE-conjugated anti-human IgG (OLI Cat. # LS-AB2) with 99 µl of 1X wash buffer to make a 1X solution.
10. Add 100 µl of 1X PE-conjugated anti-human IgG to each well. Cover with tray seal and vortex. Incubate in the dark for 30 minutes at 20 - 25º C with gentle shaking.
11. Centrifuge at 1,300 g for 5 minutes.
12. Remove supernatant from wells of plate by flicking or with vacuum aspiration.
13. Repeat Steps 6 and 7 twice.
14. Add 80 µl 1X PBS to each well. Cover with a new tray seal and vortex. Proceed to data acquisition and analysis, or store tray at 2 - 8º C in the dark for up to 24 hours before analysis.

III. To complete the test in a 96-well filter plate

1. Mix the LABScreen beads well by gently vortexing or pipetting up and down several times prior to use.
2. Dilute 10X wash buffer (OLI Cat. # LSPWABUF) in distilled water to make a 1X solution (approximately 3.2 ml/tray/wash).
3. Cover any wells of the plate that will remain unused during the test with a tray seal to assure that the unused wells remain dry. Pre-wet filters in the filter plate by dispensing 300 µl wash buffer into only those wells that will be used for the assay.
4. Incubate the plate for 10 minutes on a platform plate shaker at low speed.
5. Aspirate all wash buffers from the wells using a Millipore vacuum manifold. Do not exceed 100 mm Hg vacuum pressure!
6. Add 5 µl of LABScreen beads and 20 µl of test serum per test well.

   Note: During bead and sample dispensing steps, press pipette tip gently against filter plate well to avoid filter rupture.
7. Incubate the plate in the dark for 30 minutes at 20 - 25º C with gentle shaking.
8. Add 175 µl wash buffer per well.
9. Turn on vacuum pump. Press the plate firmly on the vacuum manifold. Make sure liquid drains out slowly. Make sure all liquid has drained from the wells before proceeding.

Caution: Do not exceed 100 mm Hg vacuum pressure. A rapid vacuum will cause loss of beads due to be entrapment in the pores of the filter paper.

10. Repeat Steps 8 and 9, above, four times.
11. Add 100 µl of 1X PE-conjugated anti-human IgG to each well.
12. Incubate in the dark for 30 minutes at 20 - 25º C with gentle shaking.
13. Repeat Steps 8 and 9 five times.
14. Add 80 µl of 1X PBS to each well.
15. Read sample on the LABScan 100 or LABScan3D flow analyzer, adjusting probe height if necessary.

    Note: LABScreen Single Antigen HLA Class I and Class II ExPlex products can be used on the LABScan3D flow analyzer only.

IV. Combined tests

Any of the above protocols can be used for a combined test of certain LABScreen products.

- For acceptable lot combinations of LS12PRA see www.onelambda.com

  (Antibody Detection>LABScreen>LABScreen PRA/ Product Documentation: LABScreen Bead Combo – Multiple IDs DataSheet).
- Do not combine LABScreen Single Antigen Class I Combi and Class II panels (bead IDs would overlap).

1. Mix equal volumes of beads. Then dispense the appropriate aggregate amount (10 or 15 µl) of bead mixture per test.
2. Bead combinations and amounts to dispense are listed in the table below.

Catalog ID	Bead volume per Test	Control (NC/PC) Beads	Test Serum per Test	Instrument
LS12PRA (CI and CII beads)	5 µl + 5 µl	Included	40 µl	LABScan 100 or LABScan3D
LS1A04 + LS1AEX01	5 µl + 5 µl	Included	40 µl	LABScan3D
LS2A01 + LS2AEX01	5 µl + 5 µl	Included	40 µl	LABScan3D
LS1A04	5 µl	Included	20 µl	LABScan 100 or LABScan3D

RESULTS

A. Data Acquisition

1. Set up the LABScan 100 or LABScan3D flow analyzer for sample acquisition and calibration according to the Luminex User's Manual.[1]
2. Choose a template according to product kit catalog ID and lot number.
   a. Acquisition templates are available from OLI by CD or via our download website.
   b. To create your own acquisition template, follow instructions in the Acquisition chapter of the Luminex User's Manual.
   c. Luminex software versions - LABScan 100 (xPONENT 3.1 or higher); LABScan 3D (xPONENT 4.2 or higher) must be used.
3. Create a file name for the samples to be run.
4. Make sure all the template settings are correct. Template specifications are:
   a. Set sample volume to 50 µl.
   b. Set sample time-out to 80 seconds.
   c. Set doublet discriminator gate to 8,000 (low limit) and 16,000 (high limit).
   d. Set number and ID of beads selected according to the product-specific worksheet provided with the product.
   e. Set minimum events collected to 100 per bead.
5. Enter the sample IDs (if the same sample is tested more than once, assign a different ID).
6. Load the plate onto the XY platform and fill the reservoir with sheath fluid.
7. Click the START button to initiate the session. After the samples have finished running, save the data output in a .csv file.
8. Wash the machine twice with sheath fluid at the end of the session.

B. Data Analysis

1. The reactivity of a test sample is calculated from the "raw" fluorescence values recorded by the LABScan device (.csv file) for each HLA coated bead.
2. Calculate anti-HLA serum reactivity by correcting for non-specific binding to the negative control bead and background values (obtained by testing with a negative control serum (OLI Cat. # LS-NC) to determine the normalized background ratio (NBG ratio). See Calculations, below.
3. For LABScreen PRA or LABScreen Single Antigen, the normalized fluorescent value for each HLA coated bead equals the value of that bead divided by the value of the NC bead. (For LABScreen Mixed, the normalized fluorescent signal equals the value of the Class I or Class II coated bead minus the value of the NC bead.)

   Note: The fluorescent signal (value) can be either the trimmed mean or median value.

C. Calculations

1. The abbreviations used in this section are defined below:

NBG ratio	Normalized Background ratio used to assign strength of each anti-HLA reaction
S#N	Sample-specific fluorescent value for bead #N
SNC bead	Sample-specific fluorescent value for Negative Control bead
BG#N	Background NC Serum fluorescent value for bead #N
BGNC bead	Background NC Serum fluorescent value for Negative Control bead
NC Serum	Negative Control Serum (OLI Cat. # LS-NC) validated for a given lot of LABScreen beads

2. For LABScreen PRA or LABScreen Single Antigen:

$$\text{NBG ratio} = \frac{\text{S\#N / SNC bead}}{\text{BG\#N / BGNC bead}}$$

For LABScreen Mixed:

$$\text{NBG ratio} = \frac{\text{S\#N - SNC bead}}{\text{BG\#N - BGNC bead}}$$

Note: If (BG#N-BGNC bead) <50 then use 50 as a default threshold value.

D. Determination of Positive/Negative Cut-Off

1. For LABScreen PRA and LABScreen Mixed:
   a. Select the NBG ratio that gives a significant shift over background fluorescent value when the background value is obtained using the negative control serum in 3 - 5 replicate tests. If you prefer, test 5 - 10 serum samples from non-transfused, non-transplanted male donors to obtain an average background value.
   b. Validate the cut-off using 5 - 10 reference alloserum samples with defined HLA antibody specificity. The NGB ratio values for expected positive antigen reactions should be above the cut-off.
   c. Additional positive/negative reactions may be noted. If necessary, adjust the LABScreen assay cut-off to match the sensitivity of a previously accepted antibody detection assay.
   d. For high PRA serum, the patient's own antigen(s) may show weak positive reactions. For such cases, the fluorescence value for the patient's own antigen may be used as the cut-off.
2. For LABScreen Single Antigen:
   a. Test negative control serum or several negative serum samples (see 1a, above).
   b. Define working range:

      Working Range = NBG ratio maximum - NBG ratio minimum
   c. Define cut-off points within the working range:

      Relative NBG ratio cut-off = X% (working range) + NBG ratio minimum, where X% = user-defined percent cut-off point within the working range for negative (1), gray area(2), weak positive (4) and strong positive (8).
   d. Set criteria to define positive vs. negative reactions, for example:
      (1) If [NBG ratio max/NBG ratio min] >8, apply the calculation in 2c.
      (2) If [NBG ratio max/NBG ratio min] <8 AND
         (a) NBG ratio max >5, then NBG ratio min should be adjusted to one half of the NBG ratio max and the relative NBG ratio cut-off should be re-computed (as in 2c) based on the adjusted NBG ratio min. The reaction is then scored as above.
         (b) NBG ratio max <5, then the reaction of the test serum with that bead is negative. Assign a score of "1".
   e. Test several reference allosera as in 1b above, using the relative NBG ratio to validate the cut-off.
      (1) Establish a strong and weak reactivity cut-off based on the performance of the reference allosera, relative to an established assay.
      (2) It may be helpful to plot the NBG ratio values in a histogram for visualization of the HLA reactivity pattern of each serum.
3. Higher or lower sensitivities can be obtained by adjusting the cut-off.
4. Optional analysis – HLA Fusion™ software.

LIMITATIONS OF THE PROCEDURE

- Sera or plasma samples that contain contaminants or aggregates may clog the LABScan flow analyzer and generate inaccurate data. Aggregates in the test specimen should be removed by centrifugation or filtering the serum prior to testing.
- The presence of IgG-IgM immune complex may cause inhibition in some patient samples. Samples should be treated to reduce this presence according to the protocols determined by the laboratory, however, samples should not be heat treated as they may cause non-specific background – please reference bibliography section for more information.[7,8,9,10, 11]
- Ambient temperature may affect LABScan 100 and LABScan3D performance. If the ambient temperature changes, the machine may need to be re-calibrated. Consult the manufacturer's manual for more information.
- The LABScan 100 and LABScan3D flow analyzer must be properly calibrated and maintained. If insufficiently flushed, aggregates of the sample may cause the machine to clog and generate invalid data.
- Assignment of antibody specificity is limited to the HLA antigens presented in each bead panel (see lot-specific worksheet).
- The bead region used for each antigen and the antigen composition of the panel may change from lot-to-lot of product (see the lot specific worksheet).
- Because of the complexity of the HLA allelic definitions, a certified HLA technician or specialist should review and interpret the data, and assign the HLA typing.
- This test must not be used as the sole basis for making a clinical decision.

EXPECTED VALUES

A. LABScreen PRA Class I or Class II

- The reactivity strength of a test serum to each bead can be compared to distinguish the strong positive, weak positive and negative reactions. Reactivity ratios can be ranked within different ranges, if a scoring system is desired.
- Our data show NBG ratios > 1.5 in the LABScreen PRA test (using the LABScan 100) correlate well with positive reactions in the FlowPRA test.
- For calculation of percent PRA (Panel Reactive Antibody), divide the number of positive reactions by the number of valid reactions for that test serum.
- To determine the specificity of HLA antibody, enter the reaction score into the lot specific Worksheet to analyze the reaction pattern.

B. LABScreen Mixed

- Score HLA Class I and Class II reactions separately, according to reactivity strength of the serum for each bead set.
- If anyone bead in the mixed assay is positive, then the result should be assigned as positive.
- Our data show that NBG ratios >2.2 in the LABScreen Mixed test (using the LABScan 100) correlate well with positive reactions in LAT™ Mixed.

C. LABScreen Single Antigen

- Allosera may produce signal/background ratios that are much higher than those obtained in the PRA assay. Establishing the assay cut-off(s) using the relative NBG ratio is one way of normalizing the data (see Results, Section D-2c).
- Our data show that a positive/negative cut-off or relative NBG ratio >15% of the working range NBG ratio calculated for each test serum (using the LABScan 100) will give results comparable to the LABScreen PRA assay.

D. General Guidelines

- Each bead count should be over 50. A lower bead count may be due to sample loss during the wash steps. It could also be due to improper calibration or clogging of the LABScan 100 or LABScan3D flow analyzer, or by photo-bleached beads that dropped out from the mapped region.
- Signal values are the fluorescence intensity of each bead set vs. the test serum. A negative control serum should be tested with the same batch of samples to establish the background value(s) for that test run.
- Negative Control Serum (OLI Cat. # LS-NC or equivalent) is recommended. Using any other negative control serum may require adjustment of cut-off values.
- Negative Control Beads (Ag ID = NC) are not coated with HLA antigen. The fluorescence value may vary among different sera due to non-specific binding of the sera or to insufficient washing. The NC value is usually less than 500 except for serum samples with a high background. It should always be lower than 1500 and less than or equal to half of the PC value.
- Positive Control Beads are coated with purified human IgG, which should bind to the secondary antibody to produce a positive signal. The PC value should be over 500 and at least twice the NC value.

E. Validation of the Assay

- The cut-off value of signal to background should be validated if a new negative control serum is used.
- For a given serum, the value for PC/NC should be greater than 2. A lower value may be due to an extremely high NC bead background value for the test serum, a high HLA bead signal for the NS control, or a low signal from the secondary antibody or the LABScan 100 and LABScan3D flow analyzer. In this case, the data may have to be confirmed.
- Each user should evaluate the performance of the assay in their laboratory to validate the cut-off value(s) selected.
- Plasma samples may give lower FI or higher background values than serum. The user may wish to normalize the data if comparing results between sera and plasma samples (see Reference 5) for the same or different test subjects.

SPECIFIC PERFORMANCE CHARACTERISTICS

A. Using the assay cut-offs referenced under Expected Values, above, LABScreen assays have given results comparable to the results of the One Lambda FlowPRA® and LAT™ assays. However, HLA antibody patterns may be quite complex. A given test sample may contain several HLA Class I and Class II antibody specificities, each with a different avidity; however, not all specificities will be recognized in assays with lesser sensitivity. Therefore, each laboratory should establish and validate the assay cut-offs for their own use based on their expertise in recognizing HLA CREG patterns and an evaluation of the assay performance using HLA allosera with defined specificities.

B. Comparison of serum vs. plasma for 1,000 blood donors in the NIHLBI REDS-II study (6) showed good correlation within the working range of the assay. For anti-HLA CI and CII antibodies the R2 values were 0.88 and 0.91, respectively. However, the NBG ratio was generally 1.3-fold higher for serum samples.

C. If high background is seen, this may indicate improper washing during the test protocol. High negative control background may cause inaccurate normalized MFI values.

D. Clinical performance testing was conducted for LABScreen products at three different clinical sites, using 240 random samples – See Table A. Clinical Performance.

E. Clinical reproducibility testing was conducted for LABScreen products at three different clinical sites using 16 (LS1PRA, LS2PRA, LS1A04) and 32 (LSM12) samples, consisting of 10 runs each, in triplicate – see Table B. Clinical Reproducibility.

F. Clinical testing used a default cut off value, with scores of >4 were considered positive.

Table A - Clinical Performance

LSM12

		LABScan 3D +	LABScan 3D -
LABScan 100	+	573	11
	-	4	119
		Undefined	40
		Total Defined	707

	Positive Agreement	Negative Agreement	Overall Agreement (excluding undefined)	Overall Agreement (including undefined)
Point estimate	98%	97%	98%	93%
One-sided 95% lower confidence limit	97%	93%	97%	91%

LS2PRA

		LABScan 3D +	LABScan 3D -
LABScan 100	+	939	57
	-	187	7781
		Total	8964

	Positive Agreement	Negative Agreement	Overall Agreement
Point estimate	94%	98%	97%
One-sided 95% lower confidence limit	93%	97%	97%

LS1PRA

		LABScan 3D +	LABScan 3D -
LABScan 100	+	2060	260
	-	446	16905
		Total	19671

	Positive Agreement	Negative Agreement	Overall Agreement
Point estimate	89%	97%	96%
One-sided 95% lower confidence limit	88%	96%	96%

LS1A04

		LABScan 3D +	LABScan 3D -
LABScan 100	+	3245	214
	-	682	12062
		Total	16203

	Positive Agreement	Negative Agreement	Overall Agreement
Point estimate	94%	95%	94%
One-sided 95% lower confidence limit	93%	94%	94%

LS1AEX01

		LS1AEX01 + LS1A04 +	LS1AEX01 + LS1A04 -
LS1AEX01	+	1364	36
	-	51	12481
		Total	13932

	Positive Agreement	Negative Agreement	Overall Agreement
Point Estimate	96.4	99.7	99.4
On-sided 95% Lower Confidence Limit	95.5	99.6	99.3

LS2AEX01

		LS2AEX01 + LS2A01 +	LS2AEX01 + LS2A01 -
LS2AEX01	+	431	4
	-	35	5722
		Total	6192

	Positive Agreement	Negative Agreement	Overall Agreement
Point Estimate	92.5	99.9	99.4
On-sided 95% Lower Confidence Limit	90.2	99.8	99.2

LS1AEX01		LS1ASP01	
		+	-
LS1AEX01	+	1337	63
	-	143	12389
		Total	13932

	Positive Agreement	**Negative Agreement**	**Overall Agreement**
Point Estimate	90.3	99.5	98.5
On-sided 95% Lower Confidence Limit	89.6	99.4	98.3

LS2AEX01		LS2ASP01	
		+	-
LS2AEX01	+	375	60
	-	25	5732
		Total	6192

	Positive Agreement	**Negative Agreement**	**Overall Agreement**
Point Estimate	93.8	99.0	98.6
On-sided 95% Lower Confidence Limit	91.4	98.7	98.4

Table B - Clinical Reproducibility

LSM12	**Overall Agreement (excluding undefined)**	**Overall Agreement (including undefined)**
Point estimate	98%	93%
One-sided 95% lower confidenc e limit	97%	93%

LS1PRA	**Overall Agreement**	**LS2PRA**	**Overall Agreement**	**LS1A04**	**Overall Agreement**
Point estimate	99%	**Point estimate**	99%	**Point estimate**	98%
One-sided 95% lower confidence limit	99%	**One-sided 95% lower confidenc e limit**	99%	**One-sided 95% lower confidenc e limit**	98%

LS1AEX01 + LS1A04	**Overall Agreement**	**LS2AEX01 + LS2A01**	**Overall Agreement**
Point Estimate	96%	**Point Estimate**	98%
One-Sided 95% Lower Confidence Limit	96%	**One-Sided 95% Lower Confidence Limit**	98%

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TRADEMARKS AND DISCLAIMERS

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All One Lambda products are designed to assist personnel experienced in HLA analysis by suggesting typing results or antibody assignments. All test results must be carefully reviewed by such qualified personnel to assure correctness.

EUROPEAN AUTHORIZED REPRESENTATIVE

EC REP MDSS GmbH, Schiffgraben 41, 30175, Hannover, Germany

EXPLANATION OF SYMBOLS *(reference EN ISO 15223-1: Medical devices – Symbols to be used with medical device labels, labeling and information to be supplied)*

Symbol	Description
REF *ISO 7000 Reg No. 2493*	Catalog number
IVD	In vitro diagnostic medical device
ISO 7000 Reg No. 1641	Consult instructions for use
ISO 7000 Reg No. 0434A	Caution
ISO 7000 Reg No. 0659	Biological risks
ISO 7000 Reg No. 0633	Upper limit of Temperature
ISO 7000 Reg No. 3082	Manufacturer
EC REP	Authorized representative in the European Community
ISO 7000 Reg No 2497	Date of Manufacture
ISO 7000 Reg No 2607	Use By Date
LOT	Batch Code

Batch field on the label is for traceability of manufacturing event

REVISION HISTORY

Revision	Date	Revision Description
05	01 Feb 2021	Update Explanation of Symbols table.
06	30 Mar 2021	Update IVD verbiage on page 1 to align with symbols table, Update Performance characteristics (B) to reference correct bibliography designation.
07	Current	Added additional information to sections for ExPlex catalog IDs: (1) Serum dilution statement to Specimen Collection Prep Section; and (2) added tables to Table A - Clinical Performance & Table B - Clinical Reproducibility. Removed reference to Rainin brand pipette tips from the *Materials Required, But Not Provided* section. Pipette tips do not need to be brand specific. Alignment to standard for caution symbol in Symbols table.

CE 0197 CE

*0197 Applies to Annex II List B products only.

ONE LAMBDA
A Thermo Fisher Scientific Brand

CERTIFICATE OF ANALYSIS

LABScreen™

Product Name:	LABScreen™ Single Antigen HLA Class II - Group 1
Catalog Number:	LS2A01
Lot Number:	014
Expiration Date:	See printed expiration date on package.

Quality Control Requirement:	Every LABScreen™ product must meet the established criteria or cut-off values set for each new raw material. The QC testing procedure utilizes a panel of known positive and negative human sera and mouse monoclonal antibodies (MAbs). The pass/fail criteria for each antigen-coated bead versus each test serum or plasma (obtained by Luminex analysis) are different for each test reagent and raw material bead lot.
Method of Analysis:	LABScreen™ products use microbeads coated with purified HLA Class I, II, and/or MICA antigens for the detection anti-HLA antibodies in human sera.
Results:	Passed

This product is prepared in accordance to GMP standards.

This certificate is applicable to all batches under the specified lot that meet the QC requirements as stated herein.

Christabel Aguele

Christabel Aguele/Product Release Specialist

22 MAY 2020

Date Issued

LABScreen™

REF

Catalog ID	Product Name
LS1PRA*	LABScreen™ PRA Class I
LS2PRA*	LABScreen™ PRA Class II
LS12PRA*	LABScreen™ PRA Class I & II
LSM12*	LABScreen™ Mixed Class I & II
LS1A04*	LABScreen™ Single Antigen HLA Class I - Combi
LS1ASP01*	LABScreen™ Single Antigen HLA Class I Supplement - Group 1
LS2A01*	LABScreen™ Single Antigen HLA Class II - Group 1
LS2ASP01*	LABScreen™ Single Antigen HLA Class II Supplement - Group 1
LS1AEX01*	LABScreen™ Single Antigen HLA Class I ExPlex
LS2AEX01*	LABScreen™ Single Antigen HLA Class II ExPlex
LSMICA001	LABScreen™ MICA Single Antigen - Group 1
LSPWABUF	LABScreen™ Wash Buffer

IVD In Vitro Diagnostic Medical Device.

INTENDED USE

LABScreen products are intended for use in detection of HLA antibody using flow cytometric technology

SUMMARY AND EXPLANATION

LABScreen products use microbeads coated with purified Class I or Class II HLA antigens and pre-optimized reagents for the detection of Class I or Class II HLA antibodies in human sera. LABScreen products utilize the LABScan™ 100 (Luminex® 100/200) or LABScan3D™ (Luminex® FLEXMAP 3D®) for analysis of up to 100 or 500 bead regions, respectively, in a single test.

The Mixed assay detects the presence of antibody to Class I and/or Class II HLA antigens. The PRA tests can detect antibodies and their specificities against the HLA antigens in each LABScreen panel. The Single Antigen assay allows confirmation of antibody specificity suggested by a previous PRA test, while individual Singles beads are used to focus on reactions against one or a few antigens, e.g. to compare reactivity of different serum samples from the same individual. A negative control serum is used to establish the background value for each bead in a test batch.

PRINCIPLE(S)

Test serum is incubated with LABScreen beads. Any HLA antibodies present in the test serum bind to the antigens on the beads and then are labeled with R-Phycoerythrin (PE)-conjugated goat anti-human IgG. The LABScan™ 100 or LABScan3D™ flow analyzer(s) simultaneously detects the fluorescent emission of PE and a dye signature from each bead, allowing almost real-time data acquisition. To assign PRA and HLA specificity, the reaction pattern of the test serum is compared to the lot-specific worksheet defining the antigen array.

REAGENTS

A. Identification

See LABScreen Reference Table for product description.

B. Warning or Caution

1. **Warning**: LABScreen PRA test reagents contain 0.1% sodium azide (NaN_3) as a preservative. Under acidic conditions, sodium azide yields hydrazoic acid, an extremely toxic compound. Dilute reagents containing sodium azide in running water before discarding, to avoid deposits in plumbing where explosive conditions may develop. (Refer to Material Safety Data Sheet for detail.)
2. **Warning**: All blood products should be treated as potentially infectious. Source material from which this product was derived was found negative when tested in accordance with current FDA required tests. No known test methods can offer assurance that products derived from human blood will not transmit infectious agents.
3. **Caution**: For manual flicking of trays, use a quick downward arm motion without wrist movement to prevent repetitive motion effects.
4. Refer to the Material Safety Data Sheet for detailed information.

C. Preparing Reagents for Use

1. See Directions for Use, below.
2. If buffer salts have precipitated out of solution during shipment or storage, re-dissolve by gently warming before preparing working dilution.

D. Storage Instructions

1. LABScreen products are shipped to the end user on dry ice. The entire package may be stored in a freezer at -65° C or below until first use, up to the labeled expiration date.
2. Once beads are thawed, DO NOT REFREEZE. Store at 2 - 8° C for up to three months or until the expiration date (if earlier).
3. After first use, store wash buffer at 2 - 8°C for up to three months or until the expiration date, if earlier.

E. Purification or Treatment Required for Use

See Directions for Use, below.

F. Instability Indications

None

INSTRUMENT REQUIREMENTS

A. Required Equipment

- LABScan 100 flow analyzer (Luminex® 100/200) with Luminex® XY platform (for automated 96-sample data acquisition) and sheath fluid delivery system (OLI Cat. # LABSCNXS3) OR LABScan3D flow analyzer (Luminex® FLEXMAP 3D®) with XY platform and sheath fluid delivery system (OLI Cat. # LABSCNXS4)
- Centrifuge
- Rotor for 1.5 ml microcentrifuge tube (9,300 g), or a swinging bucket rotor for 96-well microplate (1,300 g)
- Vortex mixer
- Plate shaker or rotating platform

For Filter Plate Option:

- Vacuum manifold, 96-well (Millipore Cat. # MAVM0960R or equivalent)
- Vacuum pump with a pressure less than 100 mm Hg
- Plate shaker or rotating platform

B. Equipment Calibration

Follow manufacturer's instructions for calibration of the LABScan 100 or LABScan3D flow analyzer.

C. Recommended Software

HLA Fusion™ (OLI Cat. # FUSPGR)

SPECIMEN COLLECTION AND PREPARATION

- Unopened blood specimens may be kept at room temperature up to 4 days. Separated serum (from clotted samples) or plasma (in ACD or K-EDTA) may be refrigerated up to 7 days, or aliquots may be frozen at -20°C or below and thawed just before the assay. Aggregates should be removed from the test serum/plasma by centrifugation (8,000 – 10,000 g for 10 minutes) or filtration (0.2 µm) prior to testing. Any aggregates or contamination of the sample may generate invalid results.
- Samples may be treated or diluted to reduce non-specific background or to remove inhibitory factor – see limitation section.

  Note:

  - Test serum or plasma should not be heat inactivated, because it may give a high background in the test.
  - Undiluted serum or plasma is generally used for the test. However, if a high background serum sample is diluted for this assay, the negative control serum should be tested at the same dilution.
- Diluting serum and plasma may reduce the reactivity (MFI) for the ExPlex Products.

PROCEDURE

A. Materials Provided

1. See the LABScreen Reference Table in Product Documentation on the One Lambda, Inc. web site for a list of materials provided for each product.
2. The volumes provided exceed the amount required for testing by a small amount to allow for pipetting losses.

B. Materials Required, But Not Provided

1. PE–Conjugated Goat Anti-Human IgG (OLI Cat. # LS-AB2)
2. PBS, filtered [USA Scientific Cat. # 9242 (500 ml 10X) or equivalent]
3. 1.5 ml microcentrifuge tube (USA Scientific Cat. # 1415-2500 or equivalent)
4. Pipette tips
5. Negative Control Serum, containing no HLA antibody when tested by LABScreen method (OLI Cat. # LS-NC or equivalent)

If the test is performed in a 96-well microplate:

1. 96-well microplate, 250 µl, non-treated surface (Whatman Cat. # 7701-3250 or equivalent)
2. Tray seal (OLI Cat. # SSPSEA300 or equivalent)

For the Filter Plate option:

1. Filter plate (Multiscreen-BV, Millipore Cat. No. MABVN1250 or equivalent)

C. Directions for Use

Notes:

- Take special care in the aliquoting process. Failure to follow the steps described below may result in reagent loss.
- Sections A through C indicate the volumes of reagents needed for testing a single bead group. If you are running a combined test, see Section D before proceeding.
- Turn on the LABScan 100 or LABScan3D flow analyzer at least 30 minutes before starting the assay.
- Create a filename and sample code sheet for each test tray.

I. For each test batch, test a negative control serum (e.g. OLI Cat. # LS-NC or equivalent) to establish background values. To complete the test in a 1.5 ml microcentrifuge tube

1. Mix the LABScreen beads well by gently vortexing or pipetting up and down several times prior to use.
2. Incubate 5 µl of LABScreen beads with 20 µl of test serum in a 1.5 ml micro-centrifuge tube for 30 minutes, in the dark at 20 - 25º C with gentle shaking.
3. Dilute 10X wash buffer (OLI Cat. # LSPWABUF) in distilled water to make a 1X solution.
4. Add 1 ml of 1X wash buffer to each bead/serum solution tube and vortex. Centrifuge at 9,300 g for 2 minutes. Aspirate and discard the supernatant.
5. Repeat Step 4 twice.
6. Dilute 1 µl per test of 100X PE-conjugated anti-human IgG (OLI Cat. # LS-AB2) with 99 µl of 1X wash buffer to make a 1X solution.
7. Add 100 µl of 1X PE-conjugated anti-human IgG to each tube. Vortex and then incubate in the dark for 30 minutes at 20 - 25º C with gentle shaking.
8. Repeat Step 4 twice.
9. Add 80 µl 1X PBS to each tube. Proceed to data acquisition and analysis, or store tray at 2 - 8º C in the dark for up to 24 hours before analysis.

II. To complete the test in a 96-well plate

Caution: Seal the 96-well tray carefully and completely to prevent well-to-well sample contamination by pressing the seal against each rim of the 96 wells. Do not re-use tray seals. Use a fresh seal for each step that requires application of a tray seal.

1. Mix the LABScreen beads well by gently vortexing or pipetting up and down several times prior to use.
2. Add 5 µl of LABScreen beads with 20 µl of test serum in each well of a 96-well plate, seal plate, and incubate for 30 minutes in the dark at 20 - 25º C with gentle shaking.
3. Dilute 10X wash buffer (Cat. # LSPWABUF) in distilled water to make a 1X wash solution.
4. After incubation, remove seal and add 150 µl of 1X wash buffer to each well of the plate. Cover with tray seal (OLI Cat. # SSPSEA300 or equivalent) and vortex. Centrifuge at 1,300 g for 5 minutes.
5. Remove wash buffer from wells of plate by flicking or with vacuum aspiration.
6. Add 200 µl of 1X wash buffer to each well of the plate. Cover with a new tray seal and vortex. Centrifuge at 1,300 g for 5 minutes.
7. Remove supernatant from wells of plate by flicking or with vacuum aspiration.
8. Repeat Steps 6 and 7.
9. Dilute 1 µl per test of 100X PE-conjugated anti-human IgG (OLI Cat. # LS-AB2) with 99 µl of 1X wash buffer to make a 1X solution.
10. Add 100 µl of 1X PE-conjugated anti-human IgG to each well. Cover with tray seal and vortex. Incubate in the dark for 30 minutes at 20 - 25º C with gentle shaking.
11. Centrifuge at 1,300 g for 5 minutes.
12. Remove supernatant from wells of plate by flicking or with vacuum aspiration.
13. Repeat Steps 6 and 7 twice.
14. Add 80 µl 1X PBS to each well. Cover with a new tray seal and vortex. Proceed to data acquisition and analysis, or store tray at 2 - 8º C in the dark for up to 24 hours before analysis.

III. To complete the test in a 96-well filter plate

1. Mix the LABScreen beads well by gently vortexing or pipetting up and down several times prior to use.
2. Dilute 10X wash buffer (OLI Cat. # LSPWABUF) in distilled water to make a 1X solution (approximately 3.2 ml/tray/wash).
3. Cover any wells of the plate that will remain unused during the test with a tray seal to assure that the unused wells remain dry. Pre-wet filters in the filter plate by dispensing 300 µl wash buffer into only those wells that will be used for the assay.
4. Incubate the plate for 10 minutes on a platform plate shaker at low speed.
5. Aspirate all wash buffers from the wells using a Millipore vacuum manifold. Do not exceed 100 mm Hg vacuum pressure!
6. Add 5 µl of LABScreen beads and 20 µl of test serum per test well.

   Note: During bead and sample dispensing steps, press pipette tip gently against filter plate well to avoid filter rupture.
7. Incubate the plate in the dark for 30 minutes at 20 - 25º C with gentle shaking.
8. Add 175 µl wash buffer per well.
9. Turn on vacuum pump. Press the plate firmly on the vacuum manifold. Make sure liquid drains out slowly. Make sure all liquid has drained from the wells before proceeding.

Caution: Do not exceed 100 mm Hg vacuum pressure. A rapid vacuum will cause loss of beads due to be entrapment in the pores of the filter paper.

10. Repeat Steps 8 and 9, above, four times.
11. Add 100 µl of 1X PE-conjugated anti-human IgG to each well.
12. Incubate in the dark for 30 minutes at 20 - 25º C with gentle shaking.
13. Repeat Steps 8 and 9 five times.
14. Add 80 µl of 1X PBS to each well.
15. Read sample on the LABScan 100 or LABScan3D flow analyzer, adjusting probe height if necessary.

    Note: LABScreen Single Antigen HLA Class I and Class II ExPlex products can be used on the LABScan3D flow analyzer only.

IV. Combined tests

Any of the above protocols can be used for a combined test of certain LABScreen products.

- For acceptable lot combinations of LS12PRA see www.onelambda.com

  (Antibody Detection>LABScreen>LABScreen PRA/ Product Documentation: LABScreen Bead Combo – Multiple IDs DataSheet).
- Do not combine LABScreen Single Antigen Class I Combi and Class II panels (bead IDs would overlap).

1. Mix equal volumes of beads. Then dispense the appropriate aggregate amount (10 or 15 µl) of bead mixture per test.
2. Bead combinations and amounts to dispense are listed in the table below.

Catalog ID	Bead volume per Test	Control (NC/PC) Beads	Test Serum per Test	Instrument
LS12PRA (CI and CII beads)	5 µl + 5 µl	Included	40 µl	LABScan 100 or LABScan3D
LS1A04 + LS1AEX01	5 µl + 5 µl	Included	40 µl	LABScan3D
LS2A01 + LS2AEX01	5 µl + 5 µl	Included	40 µl	LABScan3D
LS1A04	5 µl	Included	20 µl	LABScan 100 or LABScan3D

RESULTS

A. Data Acquisition

1. Set up the LABScan 100 or LABScan3D flow analyzer for sample acquisition and calibration according to the Luminex User's Manual.[1]
2. Choose a template according to product kit catalog ID and lot number.
   a. Acquisition templates are available from OLI by CD or via our download website.
   b. To create your own acquisition template, follow instructions in the Acquisition chapter of the Luminex User's Manual.
   c. Luminex software versions - LABScan 100 (xPONENT 3.1 or higher); LABScan 3D (xPONENT 4.2 or higher) must be used.
3. Create a file name for the samples to be run.
4. Make sure all the template settings are correct. Template specifications are:
   a. Set sample volume to 50 µl.
   b. Set sample time-out to 80 seconds.
   c. Set doublet discriminator gate to 8,000 (low limit) and 16,000 (high limit).
   d. Set number and ID of beads selected according to the product-specific worksheet provided with the product.
   e. Set minimum events collected to 100 per bead.
5. Enter the sample IDs (if the same sample is tested more than once, assign a different ID).
6. Load the plate onto the XY platform and fill the reservoir with sheath fluid.
7. Click the START button to initiate the session. After the samples have finished running, save the data output in a .csv file.
8. Wash the machine twice with sheath fluid at the end of the session.

B. Data Analysis

1. The reactivity of a test sample is calculated from the "raw" fluorescence values recorded by the LABScan device (.csv file) for each HLA coated bead.
2. Calculate anti-HLA serum reactivity by correcting for non-specific binding to the negative control bead and background values (obtained by testing with a negative control serum (OLI Cat. # LS-NC) to determine the normalized background ratio (NBG ratio). See Calculations, below.
3. For LABScreen PRA or LABScreen Single Antigen, the normalized fluorescent value for each HLA coated bead equals the value of that bead divided by the value of the NC bead. (For LABScreen Mixed, the normalized fluorescent signal equals the value of the Class I or Class II coated bead minus the value of the NC bead.)

   Note: The fluorescent signal (value) can be either the trimmed mean or median value.

C. Calculations

1. The abbreviations used in this section are defined below:

NBG ratio	Normalized Background ratio used to assign strength of each anti-HLA reaction
S#N	Sample-specific fluorescent value for bead #N
SNC bead	Sample-specific fluorescent value for Negative Control bead
BG#N	Background NC Serum fluorescent value for bead #N
BGNC bead	Background NC Serum fluorescent value for Negative Control bead
NC Serum	Negative Control Serum (OLI Cat. # LS-NC) validated for a given lot of LABScreen beads

2. For LABScreen PRA or LABScreen Single Antigen:

$$\text{NBG ratio} = \frac{\text{S\#N / SNC bead}}{\text{BG\#N / BGNC bead}}$$

For LABScreen Mixed:

$$\text{NBG ratio} = \frac{\text{S\#N - SNC bead}}{\text{BG\#N - BGNC bead}}$$

Note: If (BG#N-BGNC bead) <50 then use 50 as a default threshold value.

D. Determination of Positive/Negative Cut-Off

1. For LABScreen PRA and LABScreen Mixed:
   a. Select the NBG ratio that gives a significant shift over background fluorescent value when the background value is obtained using the negative control serum in 3 - 5 replicate tests. If you prefer, test 5 - 10 serum samples from non-transfused, non-transplanted male donors to obtain an average background value.
   b. Validate the cut-off using 5 - 10 reference alloserum samples with defined HLA antibody specificity. The NGB ratio values for expected positive antigen reactions should be above the cut-off.
   c. Additional positive/negative reactions may be noted. If necessary, adjust the LABScreen assay cut-off to match the sensitivity of a previously accepted antibody detection assay.
   d. For high PRA serum, the patient's own antigen(s) may show weak positive reactions. For such cases, the fluorescence value for the patient's own antigen may be used as the cut-off.
2. For LABScreen Single Antigen:
   a. Test negative control serum or several negative serum samples (see 1a, above).
   b. Define working range:

      Working Range = NBG ratio maximum - NBG ratio minimum
   c. Define cut-off points within the working range:

      Relative NBG ratio cut-off = X% (working range) + NBG ratio minimum, where X% = user-defined percent cut-off point within the working range for negative (1), gray area(2), weak positive (4) and strong positive (8).
   d. Set criteria to define positive vs. negative reactions, for example:
      (1) If [NBG ratio max/NBG ratio min] >8, apply the calculation in 2c.
      (2) If [NBG ratio max/NBG ratio min] <8 AND
         (a) NBG ratio max >5, then NBG ratio min should be adjusted to one half of the NBG ratio max and the relative NBG ratio cut-off should be re-computed (as in 2c) based on the adjusted NBG ratio min. The reaction is then scored as above.
         (b) NBG ratio max <5, then the reaction of the test serum with that bead is negative. Assign a score of "1".
   e. Test several reference allosera as in 1b above, using the relative NBG ratio to validate the cut-off.
      (1) Establish a strong and weak reactivity cut-off based on the performance of the reference allosera, relative to an established assay.
      (2) It may be helpful to plot the NBG ratio values in a histogram for visualization of the HLA reactivity pattern of each serum.
3. Higher or lower sensitivities can be obtained by adjusting the cut-off.
4. Optional analysis – HLA Fusion™ software.

LIMITATIONS OF THE PROCEDURE

- Sera or plasma samples that contain contaminants or aggregates may clog the LABScan flow analyzer and generate inaccurate data. Aggregates in the test specimen should be removed by centrifugation or filtering the serum prior to testing.
- The presence of IgG-IgM immune complex may cause inhibition in some patient samples. Samples should be treated to reduce this presence according to the protocols determined by the laboratory, however, samples should not be heat treated as they may cause non-specific background – please reference bibliography section for more information.[7,8,9,10, 11]
- Ambient temperature may affect LABScan 100 and LABScan3D performance. If the ambient temperature changes, the machine may need to be re-calibrated. Consult the manufacturer's manual for more information.
- The LABScan 100 and LABScan3D flow analyzer must be properly calibrated and maintained. If insufficiently flushed, aggregates of the sample may cause the machine to clog and generate invalid data.
- Assignment of antibody specificity is limited to the HLA antigens presented in each bead panel (see lot-specific worksheet).
- The bead region used for each antigen and the antigen composition of the panel may change from lot-to-lot of product (see the lot specific worksheet).
- Because of the complexity of the HLA allelic definitions, a certified HLA technician or specialist should review and interpret the data, and assign the HLA typing.
- This test must not be used as the sole basis for making a clinical decision.

EXPECTED VALUES

A. LABScreen PRA Class I or Class II

- The reactivity strength of a test serum to each bead can be compared to distinguish the strong positive, weak positive and negative reactions. Reactivity ratios can be ranked within different ranges, if a scoring system is desired.
- Our data show NBG ratios > 1.5 in the LABScreen PRA test (using the LABScan 100) correlate well with positive reactions in the FlowPRA test.
- For calculation of percent PRA (Panel Reactive Antibody), divide the number of positive reactions by the number of valid reactions for that test serum.
- To determine the specificity of HLA antibody, enter the reaction score into the lot specific Worksheet to analyze the reaction pattern.

B. LABScreen Mixed

- Score HLA Class I and Class II reactions separately, according to reactivity strength of the serum for each bead set.
- If anyone bead in the mixed assay is positive, then the result should be assigned as positive.
- Our data show that NBG ratios >2.2 in the LABScreen Mixed test (using the LABScan 100) correlate well with positive reactions in LAT™ Mixed.

C. LABScreen Single Antigen

- Allosera may produce signal/background ratios that are much higher than those obtained in the PRA assay. Establishing the assay cut-off(s) using the relative NBG ratio is one way of normalizing the data (see Results, Section D-2c).
- Our data show that a positive/negative cut-off or relative NBG ratio >15% of the working range NBG ratio calculated for each test serum (using the LABScan 100) will give results comparable to the LABScreen PRA assay.

D. General Guidelines

- Each bead count should be over 50. A lower bead count may be due to sample loss during the wash steps. It could also be due to improper calibration or clogging of the LABScan 100 or LABScan3D flow analyzer, or by photo-bleached beads that dropped out from the mapped region.
- Signal values are the fluorescence intensity of each bead set vs. the test serum. A negative control serum should be tested with the same batch of samples to establish the background value(s) for that test run.
- Negative Control Serum (OLI Cat. # LS-NC or equivalent) is recommended. Using any other negative control serum may require adjustment of cut-off values.
- Negative Control Beads (Ag ID = NC) are not coated with HLA antigen. The fluorescence value may vary among different sera due to non-specific binding of the sera or to insufficient washing. The NC value is usually less than 500 except for serum samples with a high background. It should always be lower than 1500 and less than or equal to half of the PC value.
- Positive Control Beads are coated with purified human IgG, which should bind to the secondary antibody to produce a positive signal. The PC value should be over 500 and at least twice the NC value.

E. Validation of the Assay

- The cut-off value of signal to background should be validated if a new negative control serum is used.
- For a given serum, the value for PC/NC should be greater than 2. A lower value may be due to an extremely high NC bead background value for the test serum, a high HLA bead signal for the NS control, or a low signal from the secondary antibody or the LABScan 100 and LABScan3D flow analyzer. In this case, the data may have to be confirmed.
- Each user should evaluate the performance of the assay in their laboratory to validate the cut-off value(s) selected.
- Plasma samples may give lower FI or higher background values than serum. The user may wish to normalize the data if comparing results between sera and plasma samples (see Reference 5) for the same or different test subjects.

SPECIFIC PERFORMANCE CHARACTERISTICS

A. Using the assay cut-offs referenced under Expected Values, above, LABScreen assays have given results comparable to the results of the One Lambda FlowPRA® and LAT™ assays. However, HLA antibody patterns may be quite complex. A given test sample may contain several HLA Class I and Class II antibody specificities, each with a different avidity; however, not all specificities will be recognized in assays with lesser sensitivity. Therefore, each laboratory should establish and validate the assay cut-offs for their own use based on their expertise in recognizing HLA CREG patterns and an evaluation of the assay performance using HLA allosera with defined specificities.

B. Comparison of serum vs. plasma for 1,000 blood donors in the NIHLBI REDS-II study (6) showed good correlation within the working range of the assay. For anti-HLA CI and CII antibodies the R2 values were 0.88 and 0.91, respectively. However, the NBG ratio was generally 1.3-fold higher for serum samples.

C. If high background is seen, this may indicate improper washing during the test protocol. High negative control background may cause inaccurate normalized MFI values.

D. Clinical performance testing was conducted for LABScreen products at three different clinical sites, using 240 random samples – See Table A. Clinical Performance.

E. Clinical reproducibility testing was conducted for LABScreen products at three different clinical sites using 16 (LS1PRA, LS2PRA, LS1A04) and 32 (LSM12) samples, consisting of 10 runs each, in triplicate – see Table B. Clinical Reproducibility.

F. Clinical testing used a default cut off value, with scores of >4 were considered positive.

Table A - Clinical Performance

LSM12

		LABScan 3D +	LABScan 3D -
LABScan 100	+	573	11
	-	4	119
		Undefined	40
		Total Defined	707

	Positive Agreement	Negative Agreement	Overall Agreement (excluding undefined)	Overall Agreement (including undefined)
Point estimate	98%	97%	98%	93%
One-sided 95% lower confidence limit	97%	93%	97%	91%

LS2PRA

		LABScan 3D +	LABScan 3D -
LABScan 100	+	939	57
	-	187	7781
		Total	8964

	Positive Agreement	Negative Agreement	Overall Agreement
Point estimate	94%	98%	97%
One-sided 95% lower confidence limit	93%	97%	97%

LS1PRA

		LABScan 3D +	LABScan 3D -
LABScan 100	+	2060	260
	-	446	16905
		Total	19671

	Positive Agreement	Negative Agreement	Overall Agreement
Point estimate	89%	97%	96%
One-sided 95% lower confidence limit	88%	96%	96%

LS1A04

		LABScan 3D +	LABScan 3D -
LABScan 100	+	3245	214
	-	682	12062
		Total	16203

	Positive Agreement	Negative Agreement	Overall Agreement
Point estimate	94%	95%	94%
One-sided 95% lower confidence limit	93%	94%	94%

LS1AEX01

		LS1AEX01 + LS1A04 +	LS1AEX01 + LS1A04 -
LS1AEX01	+	1364	36
	-	51	12481
		Total	13932

	Positive Agreement	Negative Agreement	Overall Agreement
Point Estimate	96.4	99.7	99.4
On-sided 95% Lower Confidence Limit	95.5	99.6	99.3

LS2AEX01

		LS2AEX01 + LS2A01 +	LS2AEX01 + LS2A01 -
LS2AEX01	+	431	4
	-	35	5722
		Total	6192

	Positive Agreement	Negative Agreement	Overall Agreement
Point Estimate	92.5	99.9	99.4
On-sided 95% Lower Confidence Limit	90.2	99.8	99.2

LS1AEX01		LS1ASP01	
		+	-
LS1AEX01	+	1337	63
	-	143	12389
		Total	13932

	Positive Agreement	**Negative Agreement**	**Overall Agreement**
Point Estimate	90.3	99.5	98.5
On-sided 95% Lower Confidence Limit	89.6	99.4	98.3

LS2AEX01		LS2ASP01	
		+	-
LS2AEX01	+	375	60
	-	25	5732
		Total	6192

	Positive Agreement	**Negative Agreement**	**Overall Agreement**
Point Estimate	93.8	99.0	98.6
On-sided 95% Lower Confidence Limit	91.4	98.7	98.4

Table B - Clinical Reproducibility

LSM12	**Overall Agreement (excluding undefined)**	**Overall Agreement (including undefined)**
Point estimate	98%	93%
One-sided 95% lower confidenc e limit	97%	93%

LS1PRA	**Overall Agreement**	**LS2PRA**	**Overall Agreement**	**LS1A04**	**Overall Agreement**
Point estimate	99%	**Point estimate**	99%	**Point estimate**	98%
One-sided 95% lower confidence limit	99%	**One-sided 95% lower confidenc e limit**	99%	**One-sided 95% lower confidenc e limit**	98%

LS1AEX01 + LS1A04	**Overall Agreement**	**LS2AEX01 + LS2A01**	**Overall Agreement**
Point Estimate	96%	**Point Estimate**	98%
One-Sided 95% Lower Confidence Limit	96%	**One-Sided 95% Lower Confidence Limit**	98%

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TRADEMARKS AND DISCLAIMERS

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™ FlowPRA and LABScreen are registered trademarks of One Lambda, Inc.

® Luminex and FLEXMAP 3D are registered trademarks of Luminex Corporation.

All One Lambda products are designed to assist personnel experienced in HLA analysis by suggesting typing results or antibody assignments. All test results must be carefully reviewed by such qualified personnel to assure correctness.

EUROPEAN AUTHORIZED REPRESENTATIVE

EC REP MDSS GmbH, Schiffgraben 41, 30175, Hannover, Germany

EXPLANATION OF SYMBOLS *(reference EN ISO 15223-1: Medical devices – Symbols to be used with medical device labels, labeling and information to be supplied)*

Symbol	Description
REF *ISO 7000 Reg No. 2493*	Catalog number
IVD	In vitro diagnostic medical device
ISO 7000 Reg No. 1641	Consult instructions for use
ISO 7000 Reg No. 0434A	Caution
ISO 7000 Reg No. 0659	Biological risks
ISO 7000 Reg No. 0633	Upper limit of Temperature
ISO 7000 Reg No. 3082	Manufacturer
EC REP	Authorized representative in the European Community
ISO 7000 Reg No 2497	Date of Manufacture
ISO 7000 Reg No 2607	Use By Date
LOT	Batch Code

Batch field on the label is for traceability of manufacturing event

REVISION HISTORY

Revision	Date	Revision Description
05	01 Feb 2021	Update Explanation of Symbols table.
06	30 Mar 2021	Update IVD verbiage on page 1 to align with symbols table, Update Performance characteristics (B) to reference correct bibliography designation.
07	Current	Added additional information to sections for ExPlex catalog IDs: (1) Serum dilution statement to Specimen Collection Prep Section; and (2) added tables to Table A - Clinical Performance & Table B - Clinical Reproducibility. Removed reference to Rainin brand pipette tips from the *Materials Required, But Not Provided* section. Pipette tips do not need to be brand specific. Alignment to standard for caution symbol in Symbols table.

CE 0197 CE

*0197 Applies to Annex II List B products only.

A New Era of Innovation
in Transplant Diagnostics

2019 • 2020

ONE LAMBDA
PRODUCT CATALOG

ONE LAMBDA
A Thermo Fisher Scientific Brand

ONE LAMBDA

A Thermo Fisher Scientific Brand

One Lambda - Leading Transplant Diagnostics for over 35 years

Pioneering scientist Dr. Paul Terasaki created the technology used to identify the first HLA antigens at UCLA in 1964, immediately revolutionizing the field of HLA and transplantation. His drive to improve the lives of transplant patients and their families led to One Lambda's founding in 1984. For over 30 years, the company has been at the forefront of transplant diagnostics, bringing new and innovative solutions to HLA laboratories worldwide.

> "FACILITATING A NEW STANDARD OF CARE IN TRANSPLANT MONITORING"

Given our long history in the field of transplantation, we understand the challenges HLA laboratories face. We are committed to providing you with the most consistent and reliable reagents, state-of-the-art instruments and software, and unmatched customer support. Our goal to facilitate a new standard of care in in transplant monitoring remains the driving force behind our product development and education.

The Evolution of HLA Typing

The human leukocyte antigen (HLA) complex represents the most highly polymorphic region of the human genome. Genetic mutations within these HLA class I and class II genes translate to variation in cell surface antigens which are not only associated with autoimmune disorders and infectious diseases but also play an important role in allogeneic histocompatibility and transplant immunology.

With mounting evidence of the importance of HLA matching to long term graft survival, there was an undeniable need to quickly and accurately assign HLA alleles for patients and donors. At first, HLA typing was done using serological techniques which proved to be relatively quick and simple but yielded low typing resolution. Routine high resolution HLA typing didn't become a possibility until the 1980's with the introduction of molecular, PCR-based, DNA typing techniques.

Today, advances in Next Generation Sequencing (NGS) offer the promise of complete gene HLA typing at the highest levels of resolution. This revolutionary technology is rapidly changing the field of hematopoietic stem cell transplantation and will allow for the continued improvement of patient outcomes. With this in mind, One Lambda is introducing AllType NGS™ HLA Typing assay to its line of molecular typing products which includes Sequence Specific Oligonucleotides (SSO), Sequence Specific Primers (SSP) and Sequence Based Typing (SBT) technologies. We are confident that our continued drive to remain at the forefront of the industry will lead to significant breakthroughs in the field of research and transplantation diagnostics.

The Effect of Transplant Monitoring on Outcome

The presence of HLA antibodies in a patient post-transplant can lead to serious complications, including rejection, which may not be immediately apparent post- transplant. Severe damage may have already occurred by the time antibodies present clinically. Monitoring patients for HLA antibodies post-transplant can reveal potential challenges and facilitate intervention before damage or rejection occurs. In the absence of such screening, and in the presence of anti-HLA antibodies, the risk of organ failure increases over time.

DSA Monitoring – New Standard of Care

Data indicates that the presence of Donor Specific Antibodies (DSAs) results in Transplant Glomerulopathy (TG) and chronic rejection. Patients diagnosed with TG experience graft survival rates of less than 50% within five years of time of diagnosis.

Our full line of antibody detection products and data analysis software can identify DSA and support clinical intervention and immunosuppressive treatment.

Non-HLA Antibody Detection

One Lambda proudly offers an answer for all of your antibody detection needs including non-HLA antibodies. Our selection of assays varies in format and coverage from single plex ELISA AT1R and ETAR assays to multiplex solid-phase assays covering a broad range of targets including vimentin, Collagen, C1q, Cytokine, HNA, KIR, and many others. All products are designed for ease of use, lab efficiency and optimized for automation.

Solutions for all Monitoring Needs

The products listed in this catalog reflect One Lambda's continuing commitment to offering a new standard of care in transplant monitoring. We help clinicians to build better patient profiles in all phases of the transplant process. From finding the best donor/recipient match, to monitoring antibodies post-transplant, One Lambda has solutions that can help laboratories and clinicians continually improve the transplant outcomes.

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Antibody Detection

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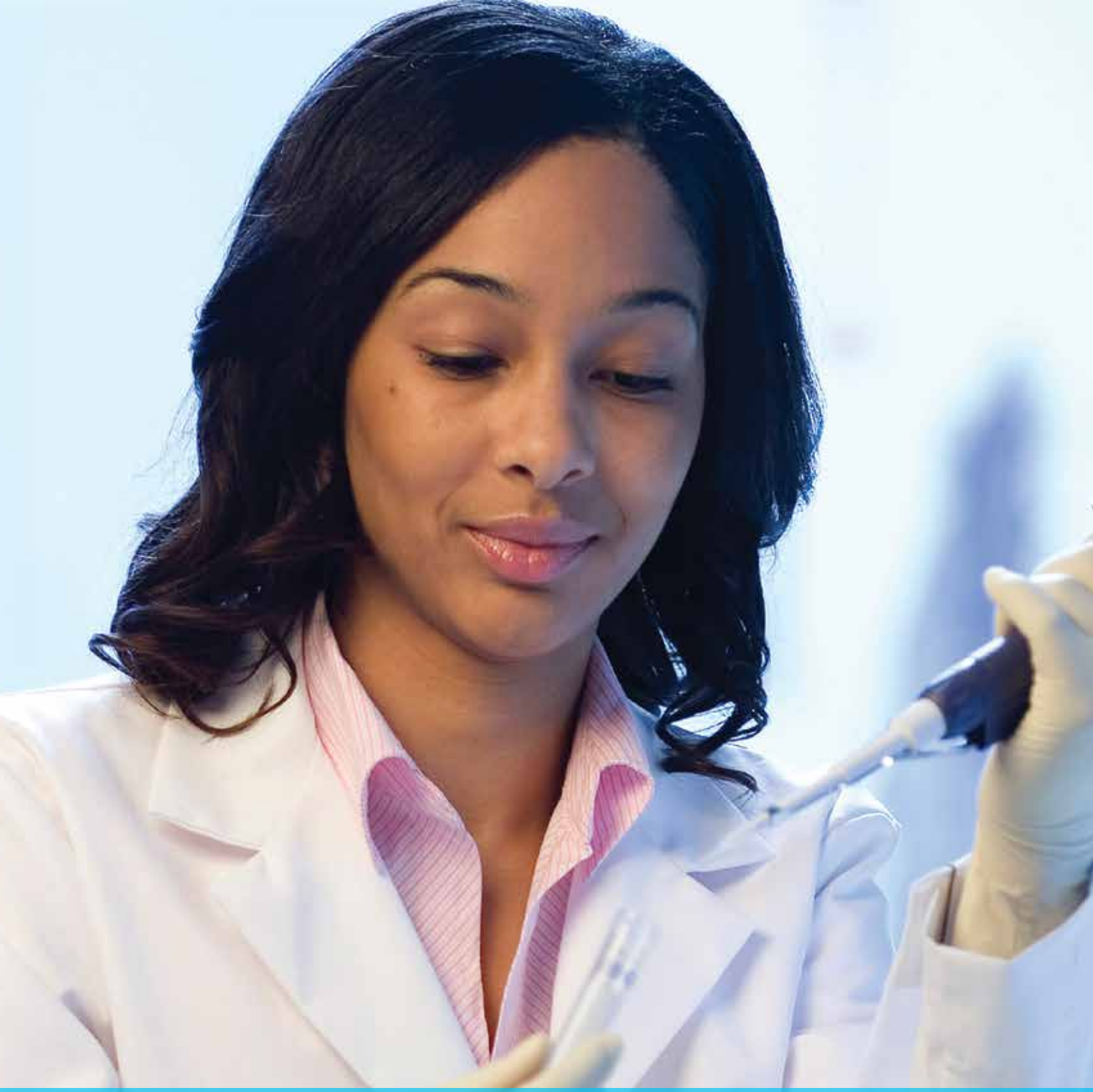


TRANSPLANTATION

ANTIBODY DETECTION FOR TRANSPLANT DIAGNOSITCS

A collection of integrated solutions to help you identify HLA antibodies that may cause graft rejection.

Transplant **Monitoring Solutions**

As the world leader in HLA tissue typing, One Lambda's HLA antibody detection technology is designed for highly specific pre -and post-transplant monitoring. Products are designed for ease of use, lab efficiency, and optimized automation.

Non-HLA **Antibody Detection**

Single Antigen Technology

Single antigen testing is a premiere technology that identifies hidden antibodies in high PRA patients that cannot be distinguished using phenotypic antigen panels. The comprehensive determination of Class I and Class II HLA antibodies allows clinicians to select acceptably mismatched donor-recipient pairs. In the post-transplant process, single antigen tests can help physicians to detect early signs of graft failure. LABScreen™, FlowPRA™ and LAT™ are available with human single antigen products to significantly improve antigen identification in both pre- and post-transplant monitoring.

> "In post-transplant monitoring, the single antigen assay can help physicians to detect early signs of graft failure."

Features and Benefits

Our single antigen assay product can be an important tool in the pre- and post-transplant monitoring of solid organ transplant patients, alerting physicians to possible complications, even before a decline in organ function is detected.

- Obtain clear analysis of HLA antibodies reactive to one or more dominant epitopes, leading to more accurate matches between high PRA patients and possible donors
- Detects HLA antibodies quickly and accurately
- Detects Class I and Class II HLA antibodies to facilitate the selection of acceptable donor/recipient pairs

Available on three testing platforms:

LABScreen (based on Luminex® xMAP® technology)

FlowPRA (flow cytometry)

Lambda Antigen Trays™ (ELISA)

Intended Use • Applications

Our single antigen products are used to determine HLA Class I and Class II antibodies for both pre- and post-transplant monitoring.

Methodologies

Each of our three testing platforms takes advantage of a different methodology, described below.

LABScreen Single Antigen
Powered by Luminex® xMAP® technology; a multiplex assay composed of single antigens bound to color-coded microbeads (Single Antigen Beads), detected by fluorescent emissions from R-Phycoerythrin (PE) conjugated goat antihuman IgG.

FlowPRA Single Antigen
An alternative single antigen bead technology using flow cytometry. Assigns percent PRA or antibody specificity for both HLA Class I and Class II by measuring fluorescent channel shifts produced by specific antibody binding detected by FITC-labeled antihuman IgG, compared to a control background signal produced by a negative serum.

LAT Single Antigen
An ELISA approach for patient HLA antibodies. Using alkaline phosphatase conjugated secondary antibodies, LAT Single Antigen identifies antibody specificities by reaction patterns with a panel of selected recombinant human HLA antigens.

Product Specifications	LABscreen Single Antigen	FlowPRA Single Antigen	LAT Single Antigen
Storage Temperature:	-65° C or below	-80° to -65° C	2° to 8° C
Shipping Considerations:	Dry Ice	Dry Ice	Cold Pack
Packaging:	25-test package	10-test package	20-test package

For In Vitro Diagnostic Use.

LABScreen™

LABScreen reagents are powered by Luminex xMAP technology, a microbead platform used to test high PRA patients with multiplex antibody assays. This single antigen-bead based assay allows for a precise determination of antibody profiles against HLA, MICA or HNA. Within the transplant community, LABScreen™ is widely recognized as a consistent, reliable, and highly sensitive tool for PRA screening.

Features and Benefits

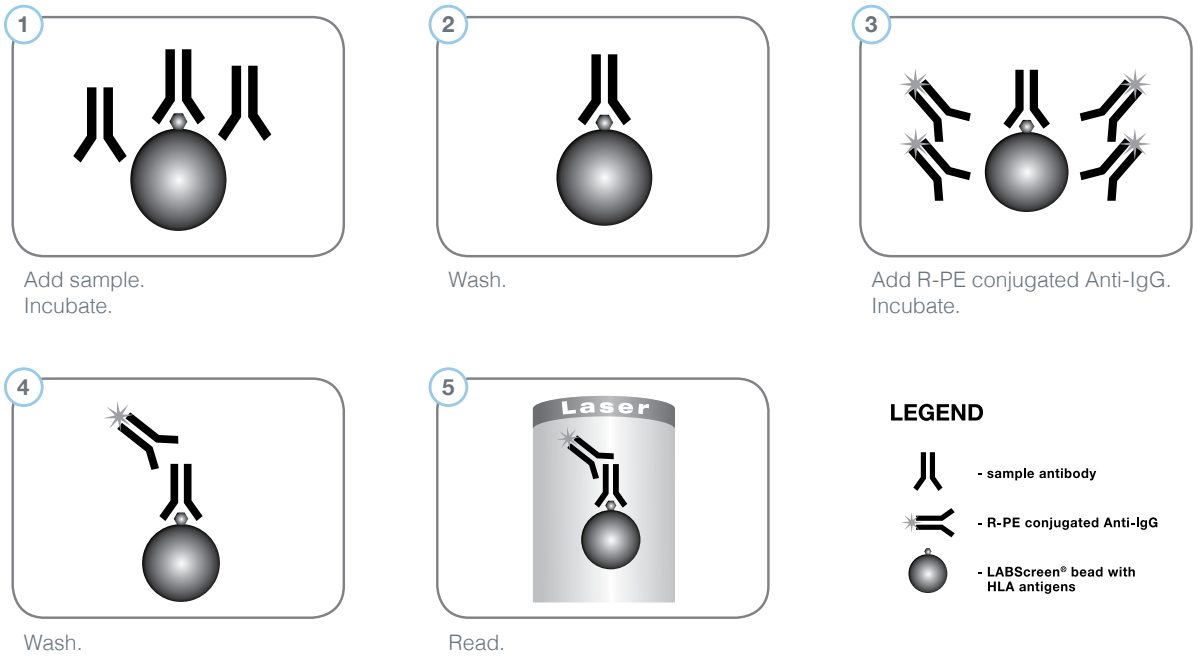
- Qualitatively measures the presence of specific HLA Class I and Class II, MICA, and HNA antibodies in human sera or plasma samples
- Contains a defined pool of HLA antigens, including rare alleles
- Eliminates false positive reactions due to non-HLA antibodies or auto-antibodies
- Multiplex analysis enhances lab automation and lowers labor costs, reagents and assay time
- 96 samples can be tested sequentially using the X-Y platform.
- Single antigen assays identify negative or safe antigens, even for high PRA patients
- Detects IgG antibodies

Principle

LABScreen products use a panel of color-coded microbeads, coated with purified HLA antigens. Up to 100 different beads can be combined in one suspension in a single test. Serum is incubated with LABScreen beads. Any HLA antibodies in the serum bind to the antigens and are labeled with PE-conjugated goat anti-human IgG. The LABScan™ 100 or LABScan3D™ detect fluorescent emission of PE from each bead, allowing nearly real-time data acquisition.

Methodology

Detection by R-Phycoerythrin Conjugated Antibody.



Intended Use • Applications

LABScreen products are intended for use in the detection of HLA antibodies using Luminex xMAP technology. Interpretation software is available for LABScreen products.

Product Specifications	LABscreen
Storage Temperature:	-65° C or below
Shipping Considerations:	Dry Ice
Packaging:	25-test package

For In Vitro Diagnostic Use. (Unless otherwise stated)

LABScreen Single Antigen HLA Class I/ II

In high PRA patients, the sera may contain antibodies reactive to one or more dominant epitopes. Using LABScreen Single Antigen to assign specificity can be more effective than conventional methods in these cases. Our LABScreen Single Antigen kits have long been used to detect HLA antibodies pre and post transplantation. With the introduction of the new, enhanced LABScreen Single Antigen Supplement kits, you can now create more complete antibody profiles for your patients.

Product Description	Cat Id	Sale Unit	Tests
LABScreen Single Antigen HLA Class I - Combi	LS1A04	pkg	25 tests
LABScreen Single Antigen HLA Class II - Group 1	LS2A01	pkg	25 tests
LABScreen Single Antigen HLA Class I - Supplement (Group1)	LS1ASP01	pkg	25 tests
LABScreen Single Antigen HLA Class II - Supplement (Group1)	LS2ASP01	pkg	25 tests

LABScreen MICA Single Antigen

Created for HLA antibody screening and identifying MHC class I related chain A (MICA) antibodies, LABScreen MICA Single Antigen can also be a valuable tool in assigning specificity. Each MICA antigen is coated on a separate bead population. Based on Luminex xMAP technology, LABScreen MICA Single Antigen is comprised of a panel of 10 MICA antigens found frequently in the population.

Product Description	Cat Id	Sale Unit	Tests
LABScreen MICA Single Antigen - Group 1	LSMICA001	pkg	25 tests

LABScreen PRA Class I/ II

LABScreen PRA determines percent PRA and identifies antibody specificities using a panel of color-coded microbeads coated with HLA antigens purified from different cells. The Class I microspheres have HLA A,B,C antigens. The Class II microspheres have DR, DQ, DP antigens. The LABScan 100 and LABScan3D flow analyzers allow you to test for Class I and Class II separately or together.

Product Description	Cat Id	Sale Unit	Tests
LABScreen PRA Class I	LS1PRA	pkg	25 tests
LABScreen PRA Class II	LS2PRA	pkg	25 tests
LABScreen PRA Class I & II Set	LS12PRA	2 pkgs	25 tests each

LABScreen Mixed

LABScreen Mixed is a screening test dedicated to detecting antibodies against HLA Class I and Class II, in addition to MHC Class I related chain A (MICA) — another factor shown to cause transplant rejection. With its ease of use, processing up to 96 samples simultaneously, LABScreen Mixed is well-suited for monthly patient antibody screening in both low and high throughput laboratories.

Product Description	Cat Id	Sale Unit	Tests
LABScreen Mixed Class I & II	LSM12	pkg	100 tests

LABScreen Ancillary Reagents

One Lambda offers a selection of Ancillary Reagents for optimizing LABScreen testing.

Storage	Adsorb Out	Negative Control	PE-Conj Goat IgG	Quantiplex™ Beads	Luminex® Calibration Control Microspheres	Sheath Fluid
Storage Temperature:	-65° C or below	-20° C or below	2° to 8° C	2° to 8° C	2° to 8° C	Room Temperature
Shipping Considerations:	Dry Ice	Dry Ice	Cold Pack	Cold Pack	Cold Pack	Room Temperature
Packaging:	1 vial in foil bag	1 vial in foil bag	1 vial in foil bag	1 vial in foil bag	5ml per bottle	20L per bottle

Adsorb Out™

Adsorb Out beads remove reactivity to latex beads from test sera with high levels of non-specific binding. Preliminary adsorption of non-specific binding material from the serum can reduce or remove the high background in a flow cytometry test. Adsorb Out consists of a special preparation of microparticles without specific antigen coating.

Product Description	Cat Id	Sale Unit	Tests
Adsorb Out (75µl)	ADSORB	vial	25 tests

For General Laboratory Use.

LABScreen Controls

LABScreen Controls establishes the background value for each test batch in the detection of Class I or Class II HLA antibodies. It contains a pool of negative sera and works with the coated microbeads of LABScreen products.

Product Description	Cat Id	Sale Unit	Tests
LABScreen Negative Control Serum	LS-NC	vial	20 tests

For In Vitro Diagnostic Use.

PE-Conjugated Goat Anti-Human IgG

PE-Conjugated Goat Anti-Human IgG is required with LABScreen tests and must be purchased separately.

Product Description	Cat Id	Sale Unit	Tests
PE - Conjugated Goat Anti-Human, Lyophilized, 1ml	LS-AB2	vial	1,000

For In Vitro Diagnostic Use.

Quantiplex™ Beads

Quantiplex Beads consist of a set of Luminex microbeads with graduated levels of fluorochrome similar to PE. They are reference beads for the standardization of the fluorescent signal generated by assays using Luminex xMap technology. This technology uses the LABScan 100 flow analyzer for data acquisition and analysis.

Product Description	Cat Id	Sale Unit	Tests
Quantiplex Beads	LXQNTPLX	pkg	25 tests

For research use only. Not for use in diagnostic procedures.

LABScreen™ Ancillary Reagents for Transplant Research

IgM Positive Control Beads bind to PE-Conjugated Anti Human IgM (Secondary Antibody) to generate a positive signal.

IgM Positive Control Beads

Used with antigen-coated microbeads to provide a positive signal.

Product Description	Cat Id	Sale Unit	Tests
IgM Positive Control Beads	IGM-PCB	vial	25 tests

For research use only. Not for use in diagnostic procedures.

PE-Conjugated Anti-Human IgM

PE-conjugated anti-human IgM reacts with Fc5μ portion of the human IgM heavy chain.

Product Description	Cat Id	Sale Unit	Tests
PE- Conjugated Anti-Human IgM	IGM-PEC1	vial	1,000

For research use only. Not for use in diagnostic procedures.

Storage	IGM-PEC1	IGM-PCB
Storage Temperature:	-65° C or below	-65° C or below
Shipping Considerations:	Dry Ice	Dry Ice
Packaging:	1 vial in foil bag	1 vial in foil bag

For research use only. Not for use in diagnostic procedures.

C1qScreen™

C1qScreen

By allowing you to differentiate between complement binding and non-complement binding, C1qScreen allows you to investigate a fixing antibody's possible role in Antibody Mediated Rejection (AMR).

Principle

C1qScreen consists of four reagents, C1q and PE Conjugated C1q antibody. The complement component (C1q), bound by the antigen-antibody complex, is detected with an R-phycoerythrin (PE) labeled C1q antibody. The fluorescence intensity measured on a Luminex analyzer or flow cytometer indicates the relative amount of antibody bound to the test sample (either antigen-coated beads or cells).

Features and Benefits

- Identifies presence of complement binding antibodies
- Internal positive control bead included
- Robust software analysis

Intended Use • Applications

This product may be used in the identification and screening of complement binding antibodies in human serum.

Product Specifications	C1qScreen
Storage Temperature:	-65° C or below
Shipping Considerations:	Dry Ice

C1qScreen (IVD)

Product Description	Cat Id	Sale Unit	Tests
C1qScreen	C1Q	1-Box	25 tests
C1qScreen Class I Positive Control	C1QS-PC1	1-Box	20 tests
C1qScreen Negative Control Serum	C1QS-NC	1-Box	20 tests
C1qScreen Class II Positive Control	C1QS-PC2	1-Box	20 tests

CE\IVD: For In Vitro Diagnostic Use. (European Union Only)

C1qScreen for Transplantation Research (RUO)

Product Description	Cat Id	Sale Unit	Tests
C1qScreen	PEC1Q	4-Boxes	25 tests
C1qScreen Class I Positive Control	C1Q-PC1	1-Box	20 tests
C1qScreen Negative Control Serum	C1Q-NC	1-Box	20 tests
C1qScreen Class II Positive Control	C1Q-PC2	1-Box	20 tests

For Research Use Only. Not for use in diagnostic procedures.

FlowDSA-XM™

Advanced Crossmatch Testing

The FlowDSA-XM is a flow cytometry based crossmatch assay optimized for the detection of leukocyte antibodies. Combining traditional flow cytometry cellular crossmatch testing with the specificity of microbeads technology, the FlowDSA-XM selectively distinguishes leukocyte antibodies from autoantibodies.

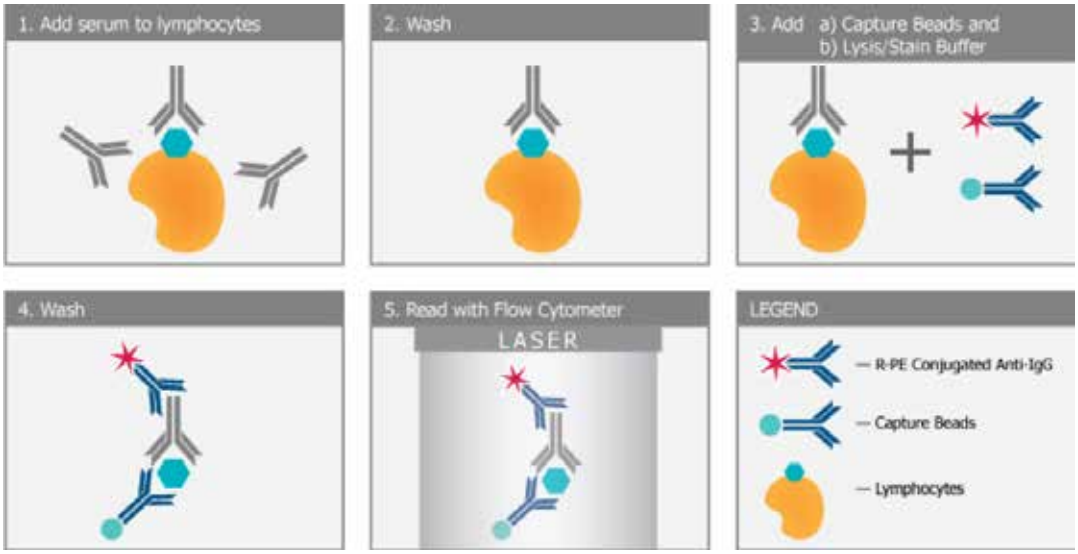
Features and Benefits

- Crossmatch testing that distinguishes leukocyte antibodies from autoantibodies
- Selectively detects any bound IgG on the cell surface
- Combines traditional flow cytometry cellular crossmatch with microbead technology
- Compatible with most basic flow cytometers
- Works with Lymphocytes from fresh or frozen sources (peripheral blood, lymph nodes, or spleen)

Principle

After incubating lymphocytes with human serum, any bound IgG on the cell surface is tagged with PE labeled anti-human IgG. FlowDSA-XM Capture Beads bind selectively with the resulting antibody/antigen/PE-anti-IgG complex and the fluorescent intensity is measured to indicate the relative amount of leukocyte antibody present in the serum.

Workflow



Product Description	Cat Id	Sale Unit	Tests
FlowDSA-XM	FLDSA	pkg	25 tests

For Research Use Only. Not for use in diagnostic procedures.

FlowPRA™

FlowPRA Single Antigen

One Lambda's FlowPRA Single Antigen products use flow cytometry to monitor acceptable antigens in high PRA patients before and after solid organ transplant procedures. Each bead is designed to react specifically to HLA Class I and HLA Class II antibodies. The two classes have different fluorescent properties, eliminating the possibility of cross reactivity.

Our sets of Class I and Class II FlowPRA reagents each consist of a pool of 32 beads, separated into four groups, and each coated with different antigens. These sets include rare HLA antigens, providing optimal profiling for high PRA patients. Control beads are also included to demonstrate test reliability. Six supplemental groups of Class I single antigen beads and a supplemental group of Class II antigen beads offer further specificities for antibody screening.

Features and Benefits

- Quickly identifies Class I and Class II HLA antibodies in high PRA patients
- Identifies negative or safe antigens, even for high PRA patients
- Confirms specificity by replacing dilution and absorption as strategies
- Clarifies ambiguous results
- Clarifies analysis of antibodies reactive to one or several dominant epitopes

Principle

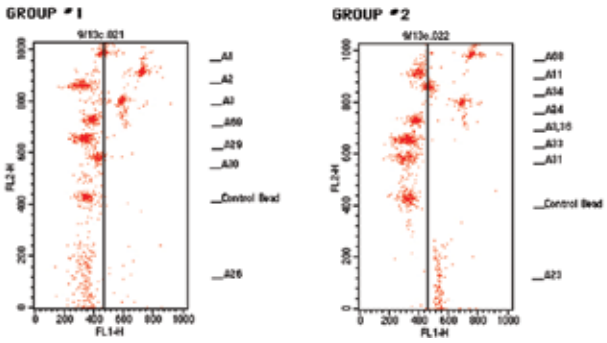
FlowPRA™ tests provide pre-optimized reagents for rapid flow cytometric detection of HLA antibodies and their specificities in human serum. The FlowPRA Single Antigen beads consist of a mixture of different colored beads with different fluorescent properties. These beads can be excited at 488 nm, generating a maximum emission of approximately 580 nm, similar to phycoerythrin (PE), which can be detected by the FL2 channel. Since different beads generate different FL2 channel shifts, different colored beads in a group can be separated by a flow cytometer on the FL2 channel.

Each group of beads is incubated separately with the test serum and then stained with a FITC conjugated anti-human IgG antibody. Beads reacting positively show an FL1 channel shift on the FL1 vs. FL2 dot plots when compared to the negative control serum and the control beads.

Intended Use • Applications

FlowPRA Single Antigen tests are used to screen highly sensitized patients, both pre- and post-transplant. They are used in identifying acceptable antigens prior to a solid organ transplant or re-transplant. The FlowPRA Single Antigen tests are designed for detailed discrimination of specificities in high PRA sera.

Results



Product Specifications	Reagents	Control Reagents
Storage Temperature:	-80˚ to -65˚ C	-80˚ to -20˚ C
Shipping Considerations:	Dry Ice	Dry Ice
Packaging:	10-tests	10-tests

For In Vitro Diagnostic Use.

Flow PRA Single Antigen HLA Class I/II Tests

Product Description	Loci	Cat Id	Sale Unit	Tests
Class I				
FlowPRA Single Antigen HLA Class I	A Locus / B Locus	FL1HD	pkg	10 tests
FlowPRA Single Antigen HLA Class I - Group 1	A Locus / B Locus	FL1HD01	pkg	10 tests
FlowPRA Single Antigen HLA Class I - Group 2	A Locus	FL1HD02	pkg	10 tests
FlowPRA Single Antigen HLA Class I - Group 3	B Locus	FL1HD03	pkg	10 tests
FlowPRA Single Antigen HLA Class I - Group 4	B Locus	FL1HD04	pkg	10 tests
FlowPRA Single Antigen HLA Class I - Supplement - Group 5	B Locus	FL1HD05	pkg	10 tests
FlowPRA Single Antigen HLA Class I Supplement - Group 6	B Locus	FL1HD06	pkg	10 tests
FlowPRA Single Antigen HLA Class I Supplement - Group 7	B Locus	FL1HD07	pkg	10 tests
FlowPRA Single Antigen HLA Class I Supplement - Group 8	A Locus / B Locus	FL1HD08	pkg	10 tests
FlowPRA Single Antigen HLA Class I Supplement - Group 9	C Locus	FL1HD09	pkg	10 tests
FlowPRA Single Antigen HLA Class I Supplement - Group 10	C Locus	FL1HD10	pkg	10 tests
Class II				
FlowPRA Single Antigen HLA Class II	DRB1/DRB3,4,5/DQB1	FL2HD	pkg	10 tests
FlowPRA Single Antigen HLA Class II - Group 1	DRB1	FL2HD01	pkg	10 tests
FlowPRA Single Antigen HLA Class II - Group 2	DRB1	FL2HD02	pkg	10 tests
FlowPRA Single Antigen HLA Class II - Group 3	DRB1 / DRB3,4,5	FL2HD03	pkg	10 tests
FlowPRA Single Antigen HLA Class II - Group 4	DQB1	FL2HD04	pkg	10 tests
FlowPRA Single Antigen HLA Class II Supplement - Group 5	DPB1	FL2HD05	pkg	10 tests

FlowPRA Screening

The FlowPRA Screening Tests can be used as a first test to detect HLA antibodies and percent PRA in human sera using flow cytometry. Each of the FlowPRA Class I and Class II assays consist of a pool of 30 different bead preparations, representing all common antigens as well as many rare HLA alleles. Intended to detect HLA-specific antibodies for pre- and post-transplantation monitoring, FlowPRA Screening provides a comprehensive and accurate assay.

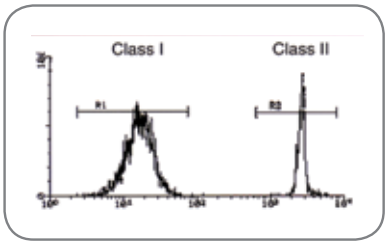
Features and Benefits

- The single tube method enables quick, easy use
- Class I and Class II antibodies can be screened separately or simultaneously
- Reduces false positive reactions due to non-HLA antibodies
- Convenient and simple, no frozen cell panels need to be maintained and no cell viability issues exist
- Works with most commercial flow cytometers
- Panel coverage is equivalent to 30 different lymphocytes
- Determines percent PRA for Class I and Class II
- Results are consistent, reproducibility is seamless
- Offers greater sensitivity than CDC-AHG
- Minimal shipping and storage costs incurred

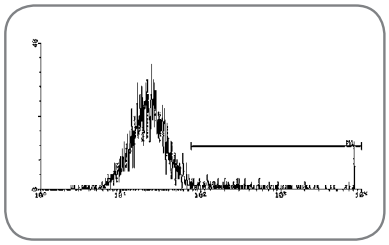
Principle

The FlowPRA Screening Test provides precalibrated reagents for rapid flow cytometric detection of PRA in human sera. Reactivity of FlowPRA beads has been confirmed by flow cytometry with human allosera and specific HLA monoclonal antibodies. HLA antibodies in the serum react specifically to the FlowPRA beads. After incubation of serum with FlowPRA beads, followed by a staining with fluorescent-labeled antihuman IgG antibody, the anti-IgG positive serum shows a fluorescent channel shift, compared to the negative serum. Percent PRA is represented by the percentage of beads that react positively with the serum.

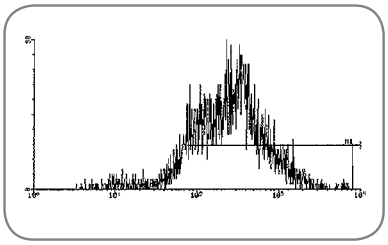
Results



FL2 histogram differentiating Class I and Class II beads



FL1 histogram of FlowPRA beads reacting with negative control serum



FL1 histogram of FlowPRA beads reacting with positive control serum

Intended Use • Applications

This test is intended for use in flow cytometric detection of HLA-specific antibodies in the sera of pre- and post-transplant organ recipients.

Product Specifications	Reagents
Storage Temperature:	-80˚ to -65˚ C
Shipping Considerations:	Dry Ice
Packaging:	10-tests

For In Vitro Diagnostic Use.

FlowPRA HLA Class I/II Screening Tests

Product Description	Cat Id	Sale Unit	Tests
FlowPRA Class I Screening Test	FL1-30	pkg	50 tests
FlowPRA Class II Screening Test	FL2-30	pkg	50 tests
FlowPRA Class I & II Screening Test	FL12-60	pkg	50 tests

FlowPRA Specific

These assays calculate percent PRA and use flow cytometry to accurately identify specific HLA antibodies. Each test consists of a panel of 32 FlowPRA Specific Class I and Class II beads, each coated with different purified Class I or Class II antigens from human cell lines. The beads are divided into four HLA groups, eight beads to a group. A serum sample must be tested separately with each group of beads to complete the bead panel analysis of the HLA Class I or Class II antibodies in that serum.

Features and Benefits

- High sensitivity and reproducibility
- Separate Class I and Class II tests available
- Specific HLA antibody detection is achieved with purified HLA antigens
- Reduced false positive reactions due to non-HLA antibodies and auto-antibodies
- No frozen lymphocyte panels to maintain and no cell viability problems to address
- Comprehensive analysis is achieved with HLA antibody specificities

Principle

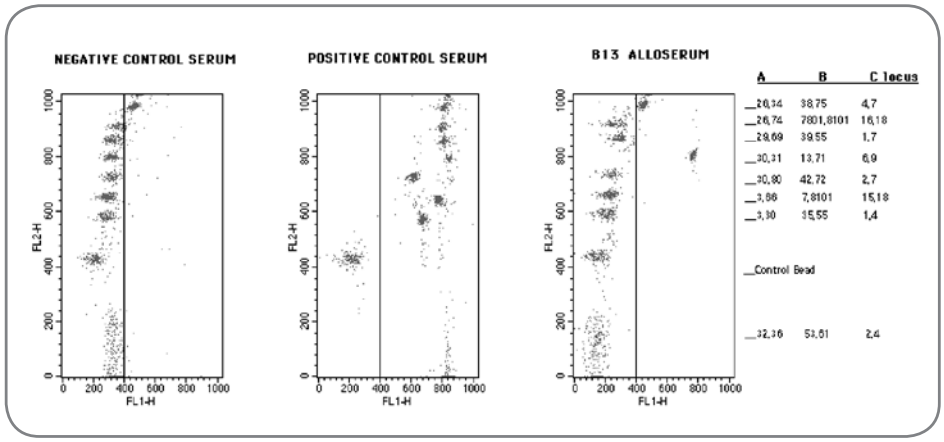
FlowPRA tests provide pre-optimized reagents for rapid flow cytometric detection of HLA antibodies and their specificities in human serum. The FlowPRA Specific Antibody Detection Test consists of a mixture of different colored beads with different fluorescent properties. These beads can be excited at 488 nm, generating a maximum emission of approximately 580 nm, similar to phycoerythrin (PE), which can be detected by the FL2 channel. Since different beads generate different FL2 channel shifts, different colored beads in a group can be separated by a flow cytometer on the FL2 channel.

Each group of beads is incubated separately with the test serum, then stained with a FITC conjugated anti-human IgG antibody. Beads reacting positively show an FL1 channel shift on the FL1 vs. FL2 dot plots when compared to the negative control serum and the control beads.

Intended Use · Applications

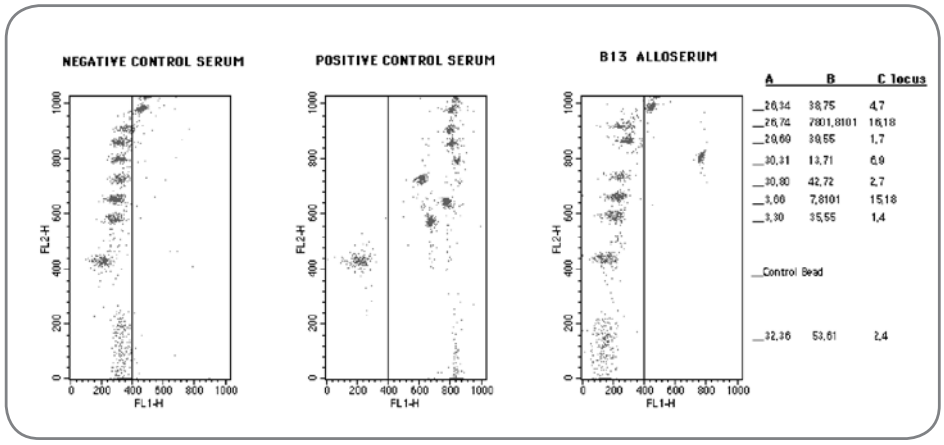
These tests are intended for use in flow cytometric detection of HLA antibodies and their specificities. FlowPRA Specific Antibody Detection Tests provide an extension to the FlowPRA Screening Tests. Both the specific and screening tests use microbeads coated with purified HLA antigens for flow cytometric detection of HLA antibodies in human sera. Screening tests can be used as a first test to detect HLA antibodies and percent PRA in human sera. Specific tests can subsequently be used to determine the antibody specificities in the serum.

Results



FlowPRA Specific Class I – Group 4*

Figure 1.
Sample dot plot for B13 positive alloserum



FlowPRA Specific Class II – Group 1*

Figure 2.
Sample dot plot for DR10 positive alloserum

*Figures depict only one out of four groups. Actual assay results consist of four groups plus positive and negative controls. Please consult product insert for more information.

Product Specifications	Reagents
Storage Temperature:	-80˚ to -65˚ C
Shipping Considerations:	Dry Ice
Packaging:	10-tests

For In Vitro Diagnostic Use.

FlowPRA Specific HLA Class I/II Tests

Product Description	Cat Id	Sale Unit	Tests
FlowPRA Specific HLA Class I Antibody Detection Test	FL1SP	pkg	10 tests
FlowPRA Specific HLA Class II Antibody Detection Test	FL2SP	pkg	10 tests

FlowPRA Ancillary Reagents

Product Specifications	Control Reagents	Other Reagents
Storage Temperature:	-80˚ to -20˚ C	-80˚ to -65˚C
Shipping Considerations:	Dry Ice	Dry Ice
Packaging:	Various	Various

Ancillary Reagents

Product Description	Cat Id	Sale Unit	Tests
Control Reagents			
FlowPRA Control Beads (50 µl)	FLCNTBD	vial	50 tests
FlowPRA Class I & II Negative Control Serum (240µl)	FL-NC	vial	10 tests
FlowPRA Class I Positive Control Serum (240µl)	FL1-PC	vial	10 tests
FlowPRA Class II Positive Control Serum (240µl)	FL2-PC	vial	10 tests
Other Reagents			
FlowPRA Reagent Pack (Anti-Human IgG, 60 µl vial plus Wash Buffer, 26 ml bottle)	FL-RP	pkg	10 tests
FlowPRA Wash Buffer (10X) - 100 ml	FL-BF100	bottle	
For In Vitro Diagnostic Use.			
Adsorb Out (75µl)	ADSORB	vial	25 tests
For General Laboratory Use.			

Lambda Antigen Tray™ (LAT)

One Lambda's LAT product line offers economical and convenient ELISA-based assays for the detection of the HLA IgG antibody. Three tray categories, each with distinct capabilities, are available in this product line. These trays feature pools of HLA antigens, which allow the determination of percent PRA and the identification of specific HLA Class I and Class II antibodies on a single tray.

Features and Benefits

- Antibody specificity is clear – LAT Class I or Class II panels allow detailed assignment of specificity
- LAT Mixed uses a pool of purified HLA Class I and Class II antigen for added specificity
- LAT ELISA results are comparable to CDC-AHG results
- Both cytotoxic and non-complement binding antibodies are recognized
- Eliminates interference from non-HLA antibodies and auto antibodies
- Distinguishes between HLA Class I and Class II specificities
- Quickly detects IgG
- Superb signal to background ratio for consistent results
- Convenient Terasaki tray format with smaller volume of reagents required
- Produced with defined pool of antigens, including rare HLA alleles

Principle

The LAT provides pre-calibrated ELISA reagents for the detection of IgG antibody to HLA Class I or Class II antigens in human serum. Defined amounts of affinity-purified HLA antigens are presented in different wells of a Terasaki tray. The specific binding of antibody from the test sample with any of these antigens is detected by a subsequent incubation with alkaline phosphatase-conjugated antibody that recognizes only human IgG. A quantitative measure of the extent of reaction is obtained by spectrophotometric determination following the addition of the appropriate enzyme substrate for the development of color. Qualitative assessment of antibody specificity is performed by analysis of the LAT reactivity pattern using the appropriate LAT worksheet.

Intended Use • Applications

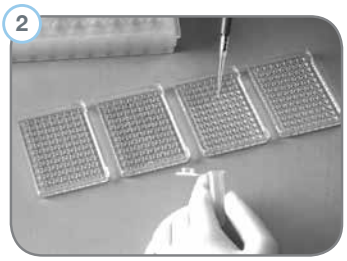
Intended for the identification of HLA-specific antibody in the serum of pre- and post-transplant organ recipients.

Methodology/Steps

1

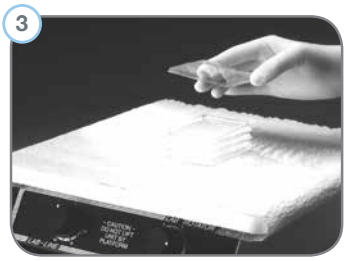
Dilute test samples.

2



Add test samples to tray.

3

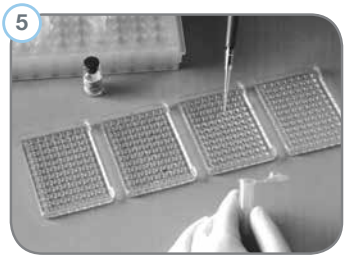


Incubate one hour. Wash and flick.

4

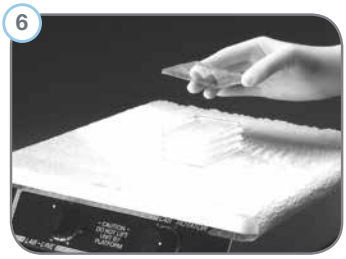
Dilute secondary antibody.

5



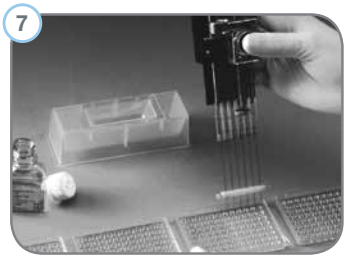
Add secondary antibody to tray.

6



Incubate 45 minutes. Wash and flick.

7



Add substrate. Incubate 15 minutes. Add stop reagent.

8

Read results.

Product Specifications	LAT	LAT Mixed
Storage Temperature:	2˚ - 8˚ C	2˚ - 8˚ C
Shipping Considerations:	Cold pack	Cold pack
Packaging:	20 trays per kit	5 trays per kit

For In Vitro Diagnostic Use.

LAT Single Antigen Class I

This ELISA-based assay detects and defines HLA antibodies in high PRA patients. Formatted on Terasaki trays, each Class I single antigen is coated in one well, allowing it to identify less common specificities that may be obscured by antibodies produced against the higher frequency antigens.

Product Description	Cat Id	Sale Unit	Tests
LAT Single Antigen Class I	LAT1HD	20 trays	20 tests

LAT Class I/II

Lambda Antigen Trays are designed for the detection of the HLA IgG antibody and feature purified HLA Class I and Class II antigens attached to each well of a Terasaki-format tray. With the addition of patient serum, the antibodies bind with the purified HLA antigens. The panel of HLA antigens can detect IgG complement-binding and non-complement-binding antibodies.

Product Description	Cat Id	Sale Unit	Tests
Lambda Antigen Tray Class I - 2 test	LAT140X2	20 trays	40 tests
Lambda Antigen Tray Class I - 1 test	LAT140	20 trays	20 tests
Lambda Antigen Tray Class II - 2 test	LAT240	20 trays	40 tests
Lambda Antigen Tray Class I & II - 2 test	LAT1240	20 trays	40 tests
Lambda Antigen Tray Class I & II	LAT1288	20 trays	20 tests

LAT Mixed Class I/II

A cost-effective, HLA antibody pre-screening test that rapidly processes multiple samples on a single tray. The mixed tray contains a defined pool of HLA antigens from several different cells, including rare HLA coverage, coated to each well of a Terasaki format tray.

Product Description	Cat Id	Sale Unit	Tests
Lambda Antigen Tray - Mixed Class I	LATM120	5 trays	100 tests
Lambda Antigen Tray - Mixed Class I & II	LATM10X5	5 trays	50 tests
Lambda Antigen Tray - Mixed Class I & II	LATM20X5	5 trays	100 tests


ONE LAMBDA
A Thermo Fisher Scientific Brand

Lambda Cell Tray™ (LCT)

LCT trays are frozen cell panels designed for PRA and HLA antibody screening by complement-dependent cytotoxicity. They consist of panels of selected lymphocytes frozen onto Terasaki Tissue Trays, providing a diverse cell panel for cytotoxic screening of human sera.

Features and Benefits

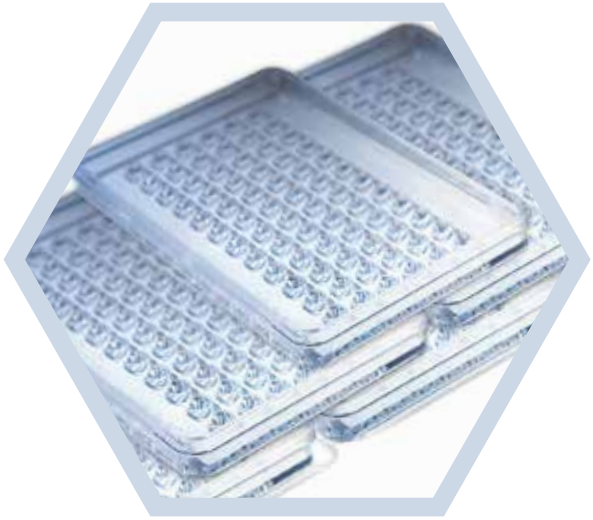
- Superb viability, accurate results
- Extensive antigen coverage
- For larger cell panels, trays can be combined for greater efficiency
- Rapid test time – 90 minutes
- Well suited for dye exclusion and fluorescence methods

Principle

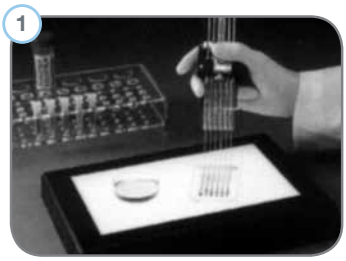
Lymphocytes with known antigens are incubated with an unknown serum and rabbit complement. If the serum contains antibodies that are able to bind specifically to those antigens present on the lymphocyte surface, complement mediated cytolysis can occur. If the unknown serum contains HLA antibodies, they can be characterized.

Intended Use • Applications

These trays are intended for the screening of sera for Class I and Class II antibodies with a complement-dependent microlymphocytotoxic technique.



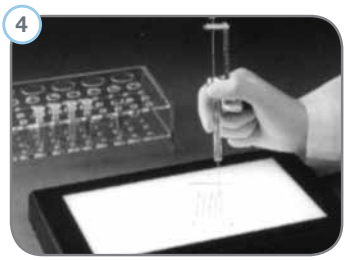
Methodology/Steps



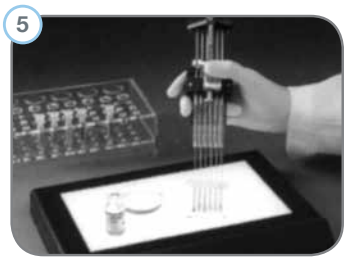
Thaw tray. Dispense McCoy's into each well.

Flick tray to remove DMSO.

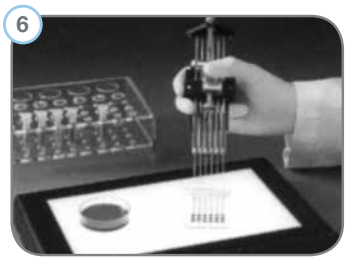
Dispense oil into each well.



Dispense sera into each well, except control wells.



Incubate tray for 30 minutes. Dispense complement into each well.



Incubate tray for 1 hour. Dispense stain/fixative into each well.

Product Specifications

Storage Temperature:	-65°C or below
Shipping Considerations:	Dry Ice
Packaging:	10 trays per box

For In Vitro Diagnostic Use.

LCT Cell Panels

Product Description	Cat Id	Sale Unit	Tests
Lambda Cell Tray 60 T Cell Panel	LCT1W60	10 trays	10 tests

Non-HLA Antibody Detection

LABScreen™ Autoantibody

Mounting evidence suggests the importance of testing autoantibodies. Employing single antigen bead technology, the LABScreen Autoantibody assays now allow you to characterize and monitor a broad range of autoantibody targets in human sera.
Following a familiar workflow and analysis algorithm, these assays can be easily integrated into your laboratory workflow without the need for new instrumentation or extensive retraining.

Expand your antibody detection capabilities and get the answers you need

Features and Benefits

- Characterize and monitor autoantibody targets
- Multiplexing capability – simultaneously detect up to 33 targets
- Negative and positive control sera available
- Minimal training required
- Use existing instrumentation (LABScan 100/200 and LABScan3D)
- Test up to 96 samples in under 4 hours
- Analyze results with HLA Fusion Research Software

Principle

LABScreen Autoantibody

The LABScreen Autoantibody assays provide a convenient way to characterize and study the autoantibody repertoire in human sera. Target antibodies can now be identified by single antigen bead technology.
Group 1 – 32 targets
Group 2‡ – 1 target
Group 3 – 6 targets

LABScreen Autoantibody Negative Control Serum

A negative control serum used as an indicator of the non-specific background signal of LABScreen Autoantibody Groups 1, 2, and 3 beads when reacting with a serum sample that does not contain the specified target antibodies.

LABScreen Autoantibody Positive Control Serum (for Group 1 and 2)

A positive control serum used as an indicator of the target-specific signal of LABScreen Autoantibody Group 1 and 2 beads when reacting with a serum sample that contains the specified target antibodies.
‡Note: Groups 1 and 2 can be combined in a single run.

Product Description	Cat Id	Sale Unit	Tests
LABScreen Autoantibody Group 1	LSAUT1	pkg	25 tests
LABScreen Autoantibody Group 2	LSAUT2	pkg	25 tests
LABScreen Autoantibody Group 3	LSAUT3	pkg	25 tests
LABScreen Autoantibody Negative Control Serum (For Group 1, 2, 3)	LSAUT-NC	pkg	10 tests
LABScreen Autoantibody Positive Control Serum (For Group 1 and 2)	LSAUT-PC	pkg	10 tests

For Research Use Only. Not for use in diagnostic procedures

AT1R - ETAR

Research has shown that antibodies against Angiotensin II Type I Receptors (AT1R) and Endothelin-1 Type A Receptors (ETAR) may have an associated risk for Antibody Mediated Rejection (AMR). One Lambda's exclusive, ELISA based, AT1R and ETAR assays can be used to research this possible link in pre- and post-transplant monitoring.

AT1R (IVD)

Product Description	Cat Id	Sale Unit	Tests
EIA for Quantitative Determination of anti-AT1R	EIA-AT1R	Kit	40 tests

For In Vitro Diagnostic Use. (Europe Only)
For Research Use Only. Not for use in diagnostic procedures. (USA and Canada)

ETAR (IVD)

Product Description	Cat Id	Sale Unit	Tests
EIA for Quantitative Determination of anti-ETAR Antibodies	EIA-ETAR	Kit	40 tests

For In Vitro Diagnostic Use. (Europe Only)
For Research Use Only. Not for use in diagnostic procedures. (USA and Canada)

AT1R – ETAR for Transplant Research

AT1R (RUO)

Product Description	Cat Id	Sale Unit	Tests
EIA for Quantitative Determination of anti-AT1R	EIA-AT1RX	Kit	40 tests

For Research Use Only. Not for use in diagnostic procedures.

ETAR (RUO)

Product Description	Cat Id	Sale Unit	Tests
EIA for Quantitative Determination of anti-ETAR Antibodies	EIA-ETARX	Kit	40 tests

For Research Use Only. Not for use in diagnostic procedures.

Product Specifications

Storage Temperature:	2° C to 8° C
Shipping Considerations:	Ambient Temperature
Packing:	40 test package

MOLECULAR TYPING FOR TRANSPLANT DIAGNOSTICS

A comprehensive line of molecular products for HLA tissue typing that support laboratories and physicians worldwide.

DNA **Technology Defined**

One Lambda is renowned for its HLA typing technology that identifies HLA alleles. We offer a comprehensive line of molecular products for HLA tissue typing that supports laboratories and physicians worldwide. LABType™ (rSSO), LinkSēq™ Real-Time PCR, Micro SSP™, SeCore™, and AllType™ NGS products are available for HLA Class I and Class II typing. HLA laboratories can choose the DNA typing method that best meets their requirements.

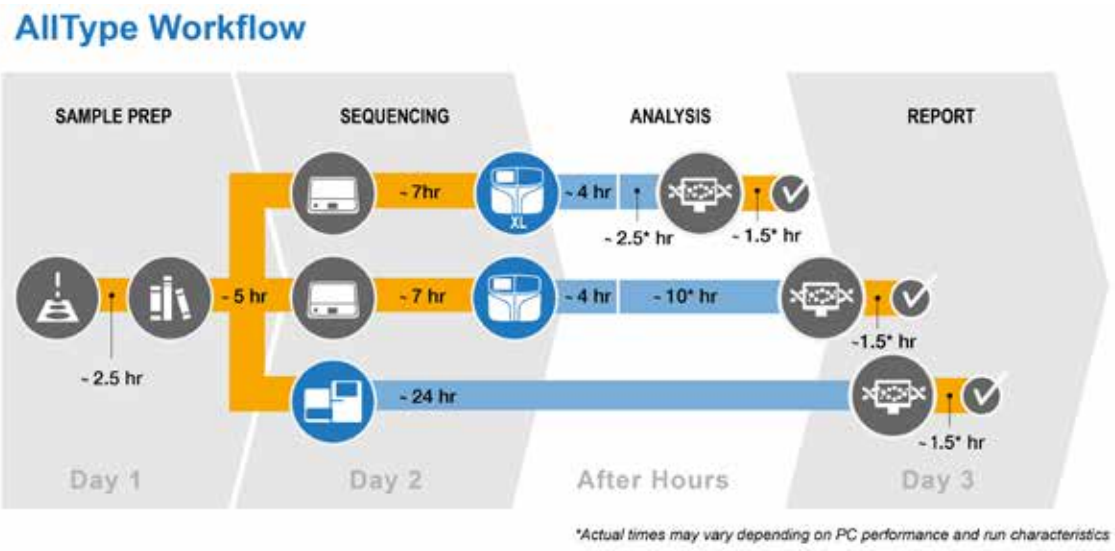
AllType™ NGS

The AllType NGS Assay introduces the latest in long-range multiplex PCR technology. By amplifying all major Class I and Class II loci in a single PCR reaction, AllType significantly reduces labor, probability of error, and total time required for sample preparation.
Make amplicon pooling a thing of the past – Take your samples directly to library preparation and begin sequencing in a single workday

Features and Benefits

- One multiplex PCR reaction per sample
- Multiplexed amplification of Class I and Class II loci in 2.5 hours
- No amplicon pooling
- Suitable for low and high volume laboratories
- Compatible with multiple platforms
- Easy protocol for manual processing (No automation needed)

Principle



Product Specifications

Storage Temperature:	-80˚ to -20˚ C
Shipping Considerations:	Dry Ice
Packaging:	4 Vials

Primer Coverage

Product Name	Catalog No.	Target	Coverage
AllType™ NGS 11-Loci Amplification Kit	ALL-11L	A	Full gene
		B	Full gene
		C	Full gene
		DRB1	Exon 2 thru 3’ UTR
		DRB345	Exon 2 thru 3’ UTR
		DQB1	Exon 2 thru 3’ UTR
		DQA1	Full gene
		DPB1	Exon 2 thru 3’ UTR
		DPA1	Full gene

For In Vitro Diagnostic Use in the European Union only.

AllType™ NGS 11-Loci Amplification Kit	ALL-11LX	A	Full gene
		B	Full gene
		C	Full gene
		DRB1	Exon 2 thru 3’ UTR
		DRB345	Exon 2 thru 3’ UTR
		DQB1	Exon 2 thru 3’ UTR
		DQA1	Full gene
		DPB1	Exon 2 thru 3’ UTR
		DPA1	Full gene

Research Use Only. Not for use in diagnostic procedures.

Continued on next page

Product Name	Catalog No.	Target	Coverage
AllType™ NGS 9-Loci Amplification Kit	ALL-9LX	A	Full gene
		B	Full gene
		C	Full gene
		DRB1	Exon 2 thru 3' UTR
		DRB345	Exon 2 thru 3' UTR
		DQB1	Exon 2 thru 3' UTR
		DPB1	Exon 2 thru 3' UTR

For Research Use Only. Not for Use in Diagnostic Procedures.

Product Name	Catalog No.	Target	Coverage
AllType™ NGS 8-Loci Amplification Kit	ALL-8LX	A	Full gene
		B	Full gene
		C	Full gene
		DRB1	Exon 2 thru 3' UTR
		DRB345	Exon 2 thru 3' UTR
		DQB1	Exon 2 thru 3' UTR

Research Use Only. Not for use in diagnostic procedures.

AllType Amplification Reagents

AllType – Ion Torrent Workflow	Catalog No.	Tests
AllType™ NGS 11-Loci Amplification Kit	ALL-11L	96 tests
AllType™ NGS 11-Loci Amplification Kit	ALL-11LX	96 tests
AllType™ NGS 9-Loci Amplification Kit	ALL-9LX	96 tests
AllType™ NGS 9-Loci Amplification Kit	ALL-8LX	96 tests

Research Use Only. Not for use in diagnostic procedures.

Sample Preparation

AllType – Ion Torrent Workflow	Catalog No.	Tests
Ion Xpress Plus Fragment Library Kit	ION-XLIB	20
Ion Xpress Barcode Adapters 1-16 Kit	ION-XBA1	10 each
Ion Xpress Barcode Adapters 17-32 Kit	ION-XBA2	10 each
Ion Xpress Barcode Adapters 33-48 Kit	ION-XBA3	10 each
Ion Xpress Barcode Adapters 49-64 Kit	ION-XBA4	10 each
Ion Xpress Barcode Adapters 65-80 Kit	ION-XBA5	10 each
Ion Xpress Barcode Adapters 81-96 Kit	ION-XBA6	10 each
Ion Xpress Barcode Adapters 1-96 Kit	ION-XBA7	10 each

For Research Use Only. Not For Use in Diagnostic Procedures.

AllType – Illumina Workflow	Catalog No.	Tests
AllType NGS 11-Loci Sample Prep Flex Kit[1]	ALL-PREP11LFX	96 tests
Ion Xpress Plus Fragment Library Kit[2]	ION-XLIB	20
AllType NGS Index Flex Kit[3]	ALL-FLEXX	96 tests

For Research Use Only. Not For Use in Diagnostic Procedures.
1Includes ALL-11LX, ION-XLIB, and ALL-FLEXX
2 Compatible with both Ion Torrent and Illumina workflows
3 Compatible with Illumina workflow only

Template Preparation & Sequencing Reagents - Ion Torrent

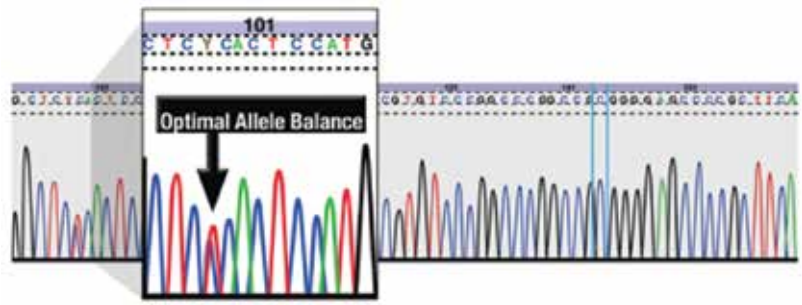
Product Name	Sale Unit	Tests	Catalog No.
Ion 520 & Ion 530 ExT Kit - Chef	multi pkg	4 runs	IONCHEF-EXT
**Contains the following kits:*			
Ion S5TM ExT Sequencing Reagents	1	4 runs	
Ion S5TM ExT Sequencing Solutions	1	4 runs	
Ion S5TM Chef Solutions	1	4 runs	
Ion S5TM ExT Chef Supplies	4	4 runs	
Ion S5TM ExT Chef Reagents	1	4 runs	
Ion 530 Chip Kit	1	4 runs	IONS5-530C4

SeCore™

The SeCore HLA SBT typing workflow solution uses the Sanger sequencing method. Sanger sequencing allows you to accurately detect and identify a high level of allelic diversity with a simple protocol. Only sequencing for HLA typing produces the sequenced DNA data in its contiguous form, allowing you to store and retrieve nucleotide data for reanalysis with future nomenclature alignment updates. This means your results have been established from the actual sequencing reads, and your analysis is mapped to most recent IMGT/HLA alignment database information.

Features and Benefits

- Accurate high resolution results; SeCore employs the gold standard for HLA typing
- Demonstrated accuracy, repeatability, and conformance proven in independent testing
- Time-to-result is within one workday
- An easy and efficient protocol with complete kits; Every kit includes the necessary enzymes and BigDye™ Terminator v1.1 chemistry reagents
- Sequencing primer mixes yield optimal allele balance with peak uniformity and low background
- Complete results - SeCore kits and uTYPE™ HLA Sequence Analysis Software are continually maintained through quarterly nomenclature allele library updates so your typing results are determined using the most recent IMGT/HLA information
- Powerful uTYPE™ HLA Sequence Analysis Software simplifies analysis; uTYPE™ HLA Sequence Analysis Software offers the ability to analyze and interpret the standard SeCore sequence data and SeCore GSSP sequence data separately or simultaneously



Workflow

1. Prepare samples, Isolate DNA
2. Amplify samples with SeCore kits
3. ExoSAP-IT® Purification
4. Cycle sequencing with thermal cyclers


ONE LAMBDA
A Thermo Fisher Scientific Brand

SeCore Workflow Timing

Step	Hands-On Time	Hands-Off Time	Total Assay Time
Amplify DNA	15 minutes	90 minutes	105 minutes
ExoSAP-IT PCR Purification	5 minutes	40 minutes	45 minutes
Sequencing Reaction	20 minutes	60 minutes	80 minutes
Sequencing Purification	10 minutes	40 minutes	50 minutes
Capillary Electrophoresis •	10 minutes	•	10 minutes + •
Total Time	60 minutes	230 minutes + •	290 minutes + • (~4 hours 50 minutes)

Estimated typical workflow based on time required to process 96 reactions

- An additional 50 to 450 minutes should be added for Capillary Electrophoresis "Hands-off Time" depending on model of AB Genetic Analyzer used.

Capillary Electrophoresis "Hands-Off Time" by Instrument •

	3130xl (16 capillary)	3500xL Dx (24 capillary)	3730xl (96 capillary)
Time Per Injection	~50 minutes	~60 minutes	~50 minutes
Number of Injections Per 96 Reactions	6 injections	4 injections	1 injections
Total Time •	**300 minutes** (5 hours)	**240 minutes** (4 hours)	**50 minutes**

Capillary Electrophoresis is based on POP-6™ polymer

SeCore SBT Kits (IVD)

Product Name	Exon Target	Sale Unit	Cat Id/Tests 25 Tests	Cat Id/Tests 500 Tests
Class I				
SeCore A Locus Sequencing Kit	Bidirectional sequencing of exons 1, 2, 3, 4, and 5	pkg	5300025	22000D
SeCore B Locus Sequencing Kit, Single Amplification System	Bidirectional sequencing of exons 1*, 2, 3, 4, and 5	pkg	5311025D	22110D
SeCore C Locus Sequencing Kit	Bidirectional sequencing of exons 1, 2, 3, 4, and 5	pkg	5320025	22200D
Class II				
SeCore DRB1 Locus Exon 2 & 3 Sequencing Kit	Bidirectional sequencing of exon 2 and 3; and codon 86	pkg	A15571	A15573
SeCore DRB1, DRB3, DRB4, DRB5 Locus Sequencing Kit Group Specific Set	Bidirectional sequencing of exon 2; and codon 86	pkg	5331025	-
SeCore DQB1 Locus 2AMP	Bidirectional sequencing of exons 2 and 3	pkg	5341025D	22410D
SeCore DPB1 Locus Sequencing Kit	Bidirectional sequencing of exons 2, 3, and 4; and codons 8 and 85	pkg	5351025	22510D

* SeCore B Locus Sequencing Kit contains unidirectional sequencing primer for exon 1 forward (1F) only.
For In Vitro Diagnostic Use.

Product Specifications

Storage Temperature:	-30 to -10C
Shipping Considerations:	Dry Ice

LABType™

Based on Luminex® xMap® Technology, LABType is a reverse SSO DNA typing system that consists of sequence specific oligonucleotide probes bound to color-coded microspheres. This multiplex analysis dramatically reduces labor, reagents, reaction-to-reaction inconsistencies, and time associated with a multi-well format assay. Our cost effective kits do not require handling of line strips or membranes, colormetric reactions, or visual analysis of colored bands or dots. With LABType you get superior resolution and a cost-effective solution for HLA A, B, C, DRB1, DRB3, DRB4, DRB5, DQA1, DQB1, DPA1, and DPB1 loci typing.

Features and Benefits

- Offers complete HLA A, B, C, DRB1, DRB3, DRB4, DRB5, DQA1, DQB1, DPA1, and DPB1 loci typing, as well as MICA
- B7 and Bw4 are supplements of the B locus kit

Principle

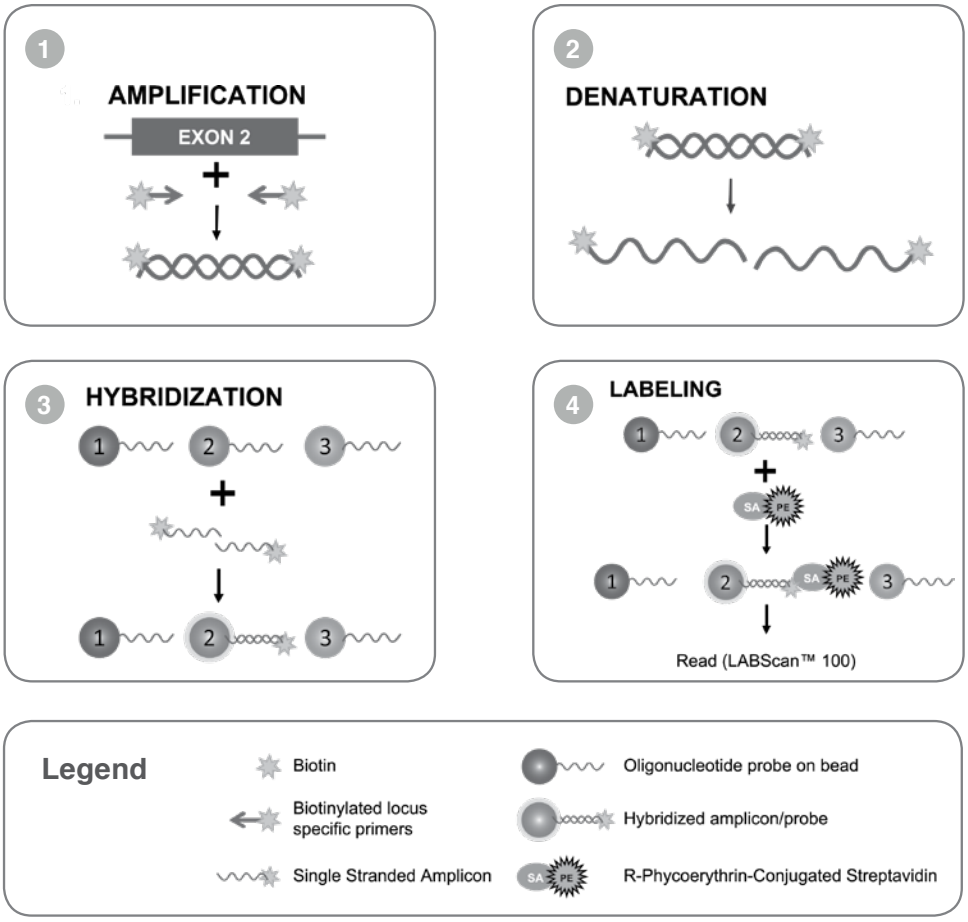
LABType uses Luminex instrumentation and is based on the reverse SSO method. Fluorescently coded microspheres are used as a solid support to immobilize oligonucleotide probes. First, target DNA is amplified using biotinylated locus-specific primers. The biotinylated amplified PCR product is denatured and allowed to hybridize to complementary DNA oligonucleotide probes which are conjugated to the fluorescently coded microspheres. Hybrids formed between amplification products and bead-bound probes are detected using R-Phycoerythrin-conjugated Streptavidin (SAPE).

The LABScan™ 100 or LABScan3D™ each identify the fluorescent intensity of PE (phycoerythrin) bound to each hybrid. The assignment of the HLA typing is based on a comparison of the obtained sample reaction pattern compared with the reaction pattern of HLA alleles determined from published HLA gene sequences.

Australian Patent 2002327046 and Canadian Patent 2,460,759

Intended Use / Applications: DNA Typing of HLA Class I or Class II alleles.

Principle


1
AMPLIFICATION
EXON 2
2
DENATURATION
3
HYBRIDIZATION
1
2
3
4
LABELING
SA
PE
Read (LABScan™ 100)
Legend
Biotin
Biotinylated locus specific primers
Single Stranded Amplicon
Oligonucleotide probe on bead
Hybridized amplicon/probe
R-Phycoerythrin-Conjugated Streptavidin

LABType XR and CWD DNA Typing Test

LABType XR and CWD assays each take advantage of the 500 bead regions exclusively available for use with the LABScan3D. Extended exon coverage for both assays, and the ability to multiplex up to 500 bead regions allows for higher resolution. The CWD assays are designed to resolve alleles as defined by the CWD catalog. The XR assays are designed for laboratories interested in increased resolution beyond the CWD assay. With up to 500 bead regions and extended exon coverage, increased typing resolution is more easily achieved.

Based on Luminex xMAP Technology, LABType is a reverse SSO DNA typing system that consists of sequence specific oligonucleotide probes bound to color-coded microspheres. This multiplex analysis technology allows you to process 96 samples at one time, dramatically reducing labor, reagents, reaction-to-reaction inconsistencies, and time associated with a multi-well format assay.

Features and Benefits

- 500 bead multiplexing
- Same workflow as LABType SSO and LABType HD
- Locus and Exon Coverage: A locus: Exons 2-5, B locus: Exons 2-5, DRB1 locus: Exon 2

LABType XR and CWD DNA Typing Test

Product Name	Sale Unit	Tests	Cat Id.
Class I			
LABType CWD Class I A Locus Typing Test - 20 tests	pkg	20 tests	RSOW1AT
LABType CWD Class I A Locus Typing Test	pkg	100 tests	RSSOW1A
LABType CWD Class I B Locus Typing Test - 20 tests	pkg	20 tests	RSOW1BT
LABType CWD Class I B Locus Typing Test	pkg	100 tests	RSSOW1B
LABType XR Class I A Locus Typing Test - 20 tests	pkg	20 tests	RSOX1AT
LABType XR Class I A Locus Typing Test	pkg	100 tests	RSSOX1A
LABType XR Class I B Locus Typing Test - 20 tests	pkg	20 tests	RSOX1BT
LABType XR Class I B Locus Typing Test	pkg	100 tests	RSSOX1B
Class II			
LABType CWD Class II DRB1 Typing Test - 20 tests	pkg	20 tests	RSOW2B1T
LABType CWD Class II DRB1 Typing Test	pkg	100 tests	RSSOW2B1
LABType XR Class II DRB1 Typing Test - 20 tests	pkg	20 tests	RSOX2B1T
LABType XR Class II DRB1 Typing Test	pkg	100 tests	RSSOX2B1

For In Vitro Diagnostic Use.

Product Specifications

Storage Temperature:	-80 to -20C
Shipping Considerations:	Cold pack

LABType® SSO HLA Class I/II Typing Test

Typing spans A, B, C; DRB1; DRB3, 4, 5; DPA1/DPB1; DQA1/DQB1; and MICA. DQA1/DQB1, and DPA1/ DPB1 cover exons 2 and 3. Exon 4-7 is a Class I supplement for A, B, and C locus; B7 and Bw4 are supplements for B locus kits.

Features and Benefits

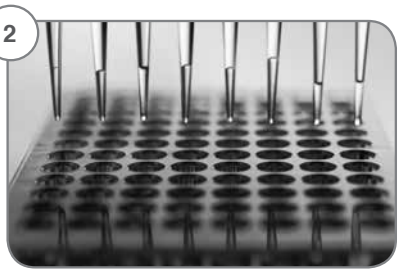
- Multiplex analysis, “all-in-one” reaction dramatically reduces labor, reagents, reaction-to-reaction inconsistency, and time involved in a multi-well format assay
- Specialty probe technology allows resolution of ambiguities that would require an additional assay with conventional SSO or SBT methods
- Automated data acquisition using LABScan 100 or LABScan3D
- Software-aided data analysis and HLA allele assignment via HLA Fusion
- Robust assay - no handling of line strips or membranes, no colorimetric reaction, and no visual analysis of colored bands or dots
- Post hybridization stability - allows batch processing
- Ideal solution - for both low volume and high throughout laboratories
- Cost-effective - saves money, labor, and processing time
- Superior resolution

Workflow

1

PCR Amplification

2

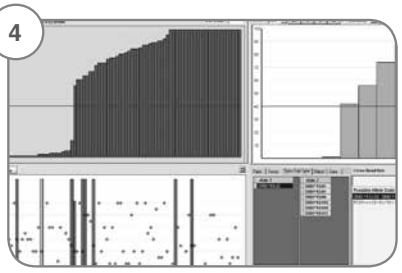


Hybridization of PCR products to beads

3

Detection using LABScan 100 or LABScan3D

4



Software analysis HLA assignment using HLA Fusion

LABType SSO HLA Class I/II Typing Tests

Product Name	Sale Unit	Tests	Cat Id.
Class I			
LABType SSO Class I A Locus Typing Test - 20 tests	pkg	20 tests	RSO1AT
LABType SSO Class I A Locus Typing Test	pkg	100 tests	RSSO1A
LABType SSO Class I B Locus Typing Test - 20 tests	pkg	20 tests	RSO1BT
LABType SSO Class I B Locus Typing Test	pkg	100 tests	RSSO1B
LABType SSO Class I B7 Supplement Typing Test - 20 tests	pkg	20 tests	RSO1S1T
LABType SSO Class I B7 Supplement Typing Test	pkg	100 tests	RSSO1S1
LABType SSO Class I Bw4 Supplement Typing Test - 20 tests	pkg	20 tests	RSO1S4T
LABType SSO Class I Bw4 Supplement Typing Test	pkg	100 tests	RSSO1S4
LABType SSO Class I C Locus Typing Test - 20 tests	pkg	20 tests	RSO1CT
LABType SSO Class I C Locus Typing Test	pkg	100 tests	RSSO1C
Class II			
LABType SSO Class II DPA1/DPB1 Typing Test - 20 tests	pkg	20 tests	RSO2PT
LABType SSO Class II DPA1/DPB1 Typing Test	pkg	100 tests	RSSO2P
LABType SSO Class II DQA1/DQB1 Typing Test - 20 tests	pkg	20 tests	RSO2QT
LABType SSO Class II DQA1/DQB1 Typing Test	pkg	100 tests	RSSO2Q
LABType SSO Class II DRB1 Typing Test - 20 tests	pkg	20 tests	RSO2B1T
LABType SSO Class II DRB1 Typing Test	pkg	100 tests	RSSO2B1
LABType SSO Class II DRB3,4,5 Typing Test - 20 tests	pkg	20 tests	RSO2345T
LABType SSO Class II DRB3,4,5 Typing Test	pkg	100 tests	RSSO2345

For In Vitro Diagnsotic Use.

Product Specifications

Storage Temperature:	-80 to -20C
Shipping Considerations:	Cold Pack

LABType SSO MICA

LABType SSO MICA types MICA alleles using Luminex xMAP technology. Typing for MICA can be instrumental in determining HLA-compatible donor-recipient matches. But it is also helpful in assuring that a patient is matched with a MICA-compatible donor. The test is also used to determine a patient's MICA typing to assure that MICA antibodies are not auto-reactive antibodies.

Product Description	Cat Id	Sale Unit	Tests
LABType SSO MICA	RSSOMICA	pkg	40 tests

For In Vitro Diagnsotic Use.

Tray Aspirator LT

Our Tray Aspirator allows you to remove excess liquid from eight wells of a high profile PCR tray simultaneously. The probe depth of the manifold makes this device suited for high profile PCR trays.

Product Description	Cat Id
Tray Aspirator	TASPCR

For General Laboratory Use.

Ancillary Reagents

One Lambda offers a selection of Ancillary Reagents for optimizing LABType testing.

SAPE

Product Description	Cat Id	Sale Unit	Tests
PE - Conjugated Streptavidin, Lyophilized, 1ml	LT-SAPE	vial	2000 tests

For In Vitro Diagnsotic Use.

Product Specifications

Storage Temperature:	2˚ to 8˚ C
Shipping Considerations:	Cold Pack
Packaging:	1 Vial

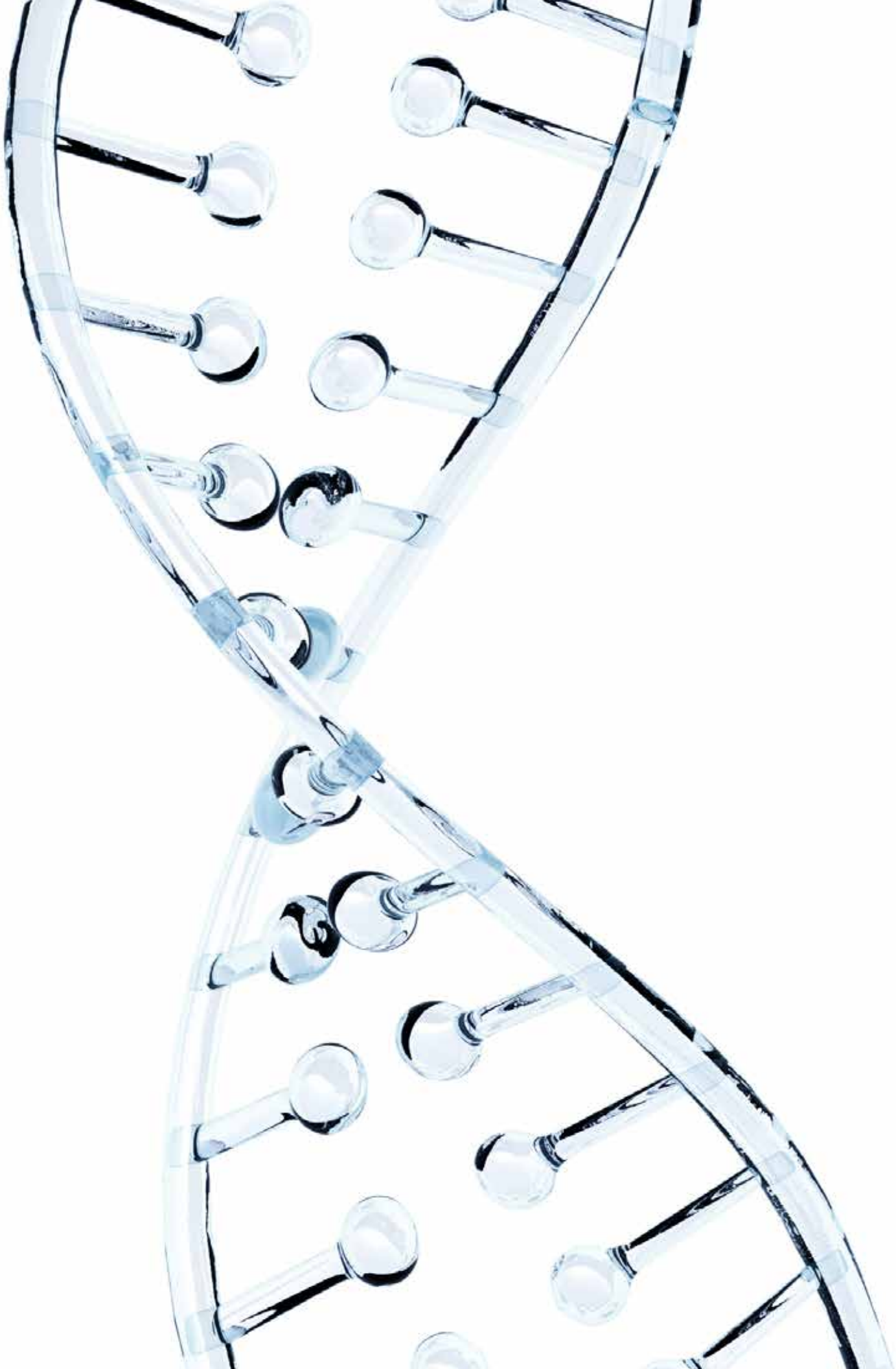
TAQ Polymerase

Product Description	Cat Id	Sale Unit
Taq Polymerase - 30µl	TAQ30	bottle
Taq Polymerase - 50µl	TAQ50	bottle
Taq Polymerase - 75µl	TAQ75	bottle

For General Laboratory Use

Product Specifications

Storage Temperature:	-20˚ or below
Shipping Considerations:	Cold Pack
Packaging:	bottle



LinkSēq™ Real-Time PCR

Fast and Easy Real-time PCR Genotyping

LinkSēq is a rapid genotyping method with a simple workflow that prevents post-amplification contamination. With a fast turnaround time of only 90 minutes, and minimal hands-on time, your lab's productivity will greatly increase.

With LinkSēq, you can achieve high throughput. By using inexpensive thermal cyclers for the first 60 minutes of the amplification step and only 10 minutes on a real time PCR instrument, you can type multiple samples per hour with unmatched simplicity. Products include HLA, KIR and ABO.

For LinkSeq KIR Genotyping products, see page 67
For LinkSeq ABO typing products, see page 93

Features and Benefits

- More productivity with less effort
- Fewer repeats with less steps and reproducible results
- SureTyper software for robust and automated analysis

LinkSēq HLA Typing Kits

The LinkSēq family of HLA typing kits provides a multitude of options for high throughput typing products. Available in both 96 well and 384 well configurations, the LinkSēq HLA typing kits cover Class I and Class II alleles across all 11 loci including specific typing kits and null allele typing kits.

LinkSēq HLA Typing Kits

Product Name Class I & II Typing	Tray Type	Layout	No. of Tests	Cat Id
LinkSēq HLA - ABCDRDQB1	96 well	1 Sample per 2 Trays	10	1054C
LinkSēq HLA - ABCDRDQA1DQB1 384	384 well	2 Samples per Tray	20	1550C
LinkSēq HLA - ABCDRDQB1 384	384 well	1 Samples per Tray	10	1551C
LinkSēq HLA - ABCDRDQB1 384	384 well	2 Samples per Tray	20	1554C
LinkSēq HLA - ABCDRDQDP+ 384	384 well	1 Sample per Tray	10	1575C
LinkSēq HLA - ABCDRDQDP SABR 384	384 well	1 Sample per Tray	10	1580C
LinkSēq HLA – Single-Locus AC-DRDQDP	384 well	1 sample per tray	10	2301C
LinkSēq HLA - ABDR	96 well	1 sample per 2 Trays	10	3030C
LinkSēq HLA - ABDR 384	384 well	1 Sample per Tray	10	3331C
LinkSēq HLA - ABDR 384	384 well	2 samples per Tray	20	3332C
LinkSēq HLA – ABDR/ ADR	96 well	1 Sample per Tray	10	3060C
Class I Typing				
LinkSēq HLA - ABC 384	384 well	1 sample per tray	10	1821C
LinkSēq HLA - ABC 384	384 well	2 samples per tray	20	1822C
LinkSēq HLA - A	96 well	1 sample per Tray	10	2011C
LinkSēq HLA – B	96 well	1 sample per Tray	10	2020C
LinkSēq HLA - B 384	384 well	2 sample per tray	20	2322C
Class II Typing				
LinkSēq HLA - DRDQDP 384	384 well	1 sample per tray	10	1861C
LinkSēq HLA - DRDQDP 384	384 well	2 sample per tray	20	1862C
HLA – Specific Genetic Markers				
LinkSēq HLA – B27	Strips	3 Samples per Strip	36	8011C
LinkSēq HLA – B*57:01	Strips	3 Samples per Strip	36	8020C

For In Vitro Diagnostic Use. (European Union only.)
For research use only. Not for use in diagnostic procedures. (USA and Canada)

LinkSēq HLA Typing Kits

Class I & II Typing	Tray Type	Layout	No. of Tests	Cat Id
LinkSēq HLA - ABCDRDQB1	96 well	1 Sample per 2 Trays	10	1054R
LinkSēq HLA - ABCDRDQA1DQB1 384	384 well	2 Samples per Tray	20	1550R
LinkSēq HLA - ABCDRDQB1 384	384 well	1 Samples per Tray	10	1551R
LinkSēq HLA - ABCDRDQB1 384	384 well	2 Samples per Tray	20	1554R
LinkSēq HLA - ABCDRDQDP+ 384	384 well	1 Sample per Tray	10	1575R
LinkSēq HLA - ABCDRDQDP SABR 384	384 well	1 Sample per Tray	10	1580R
LinkSēq HLA – Single-Locus ACDRDQDP	384 well	1 sample per tray	10	2301R
LinkSēq HLA - ABDR	96 well	1 sample per 2 Trays	10	3030R
LinkSēq HLA - ABDR 384	384 well	1 Sample per Tray	10	3331R
LinkSēq HLA - ABDR 384	384 well	2 samples per Tray	20	3332R
LinkSēq HLA – ABDR/ ADR	96 well	1 Sample per Tray	10	3060R
Class I Typing				
LinkSēq HLA - ABC 384	384 well	1 sample per tray	10	1821R
LinkSēq HLA - ABC 384	384 well	2 samples per tray	20	1822R
LinkSēq HLA - A	96 well	1 sample per Tray	10	2011R
LinkSēq HLA – B	96 well	1 sample per Tray	10	2020R
LinkSēq HLA - B 384	384 well	2 sample per tray	20	2322R
Class II Typing				
LinkSēq HLA - DRDQDP 384	384 well	1 sample per tray	10	1861R
LinkSēq HLA - DRDQDP 384	384 well	2 sample per tray	20	1862R

For research use only. Not for use in diagnostic procedures.

LinkSēq Real-Time PCR

HLA – Specific Genetic Markers	Tray Type	Layout	No. of Tests	Cat Id
LinkSēq HLA – B27	Strips	3 Samples per Strip	36	8011R
LinkSēq HLA – B*57:01	Strips	3 Samples per Strip	36	8020R
LinkSēq HLA – DQ2, DQ8, DQA1*05	Strips	1 Sample per Strip	12	8050R
LinkSēq HLA – DQ2, DQ8, DQA1*05	96 Well	12 Samples per tray	120	8051R
LinkSēq HLA – DQB1*06:02, DQA1*01:02	Strips	2 Samples per strip	24	8060R
Null Allele Typing				
LinkSēq HLA – Null Allele *01:04N, A*03:21N, A*24:09N, A*24:11N, A*68:11N, B*15:01:01:02N, B*51:11N, C*04:09N	Strips	1 Sample per strip	12	7100R

For research use only. Not for use in diagnostic procedures.

LinkSēq Real-Time PCR

LinkSēq HLA Typing Kits

Wipe Test	Tray Type	Layout	No. of Tests	Cat Id
LinkSēq Wipe Test 384	384 well	6 samples per Tray	24	9800R
LinkSēq Wipe Test	Strip	6 samples per 3 strips	24	9850R

For research use only. Not for use in diagnostic procedures.

Ancillary Reagents and Consumables

We provide ancillary reagents and consumables to help you get the most out of our LinkSēq products.

Miscellaneous	Layout	Cat Id
LinkSēq Laboratory Starter Kit	1 Kit	AC-001
Real-Time PCR Compression Pad	1 compression Pad	AC-010
Real-Time PCR Seal	1 pck (10 PCR seals)	AC-020
Optical Strip Covers	1 pck (10 Optical Strip Covers)	AC-025
Adhesive Seal Applicator	1 Applicator	AC-030
Roche LightCycler 480 Optical Strip Tube Adaptor	1 Adaptor	AC-040
384-Well Multi-Sample Starter Kit	1 Kit	AC-100
LinkSēq Enzyme & Buffer for 1575/1580 Trays	1 Enzyme & 5 Buffers	AC-200
LinkSēq Enzyme & Buffer for 1550/1554 Trays	1 Enzyme & 5 Buffers	AC-230

Product Specifications

Storage Temperature:	-35 to -15C
Shipping Considerations:	Cold Pack

Micro SSP™

One Lambda's portfolio of Micro SSP typing trays provide complete HLA Class I and Class II DNA typing.

Using Generic Trays, technologists can either assign HLA Class I or Class II alleles individually or simultaneously. If more detailed typing is needed, the High Resolution Allele Specific Trays will help eliminate ambiguities.

Features and Benefits

- Products for both serological and allele level typing
- Generic trays: Class I, Class II, combined Class I and II
- High resolution trays: DPA1/DPB1, DQA1 and DRB1,3, 4, 5
- Allele specific trays: Refines results for specific alleles
- Class I and Class II null trays – to resolve common null alleles
- Results you can trust - each test has a color-coded negative control to minimize technician variation and the chance for human error.
- Efficient workflow - kits include dried, predispensed primer mixes and pre-aliquoted buffer, making handling easier and faster

Principle

The PCR-SSP methodology is based on the principle that completely matched oligonucleotide primers are more efficiently used in amplifying a target sequence than a mismatched oligonucleotide primer by recombinant Taq polymerase. Primer pairs are designed to have perfect matches only with a single allele or group of alleles. Under strictly controlled PCR conditions, perfectly matched primer pairs result in the amplification of target sequences (positive result), while mismatched primer pairs do not result in amplification (negative result). After the PCR process, the amplified DNA fragments are separated by agarose gel electrophoresis and visualized by staining with ethidium bromide and exposure to ultraviolet light. Interpretation of PCR-SSP results is based on the presence or absence of a specific amplified DNA fragment.

U.S. Patent 6,207,379

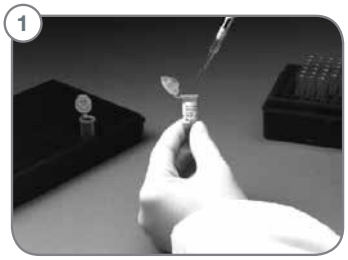
Product Specifications	Generic Trays	High-Resolution Trays	Allele Specific Trays	Seramates	AmbiStrips
Storage Temperature:	-80˚ to -20˚ C	-80˚ to -20˚ C	-80˚ to -20˚ C	-80˚ to -20˚ C	-80˚ to -20˚ C
Shipping Considerations:	Cold Pack	Cold Pack	Cold Pack	Cold Pack	Cold Pack
Packaging:	4 trays or 10 trays in box	4 trays or 10 trays in box	4 trays in box	4 trays in box	1 strip in box

For In Vitro Diagnostic Use.

Intended Use • Applications

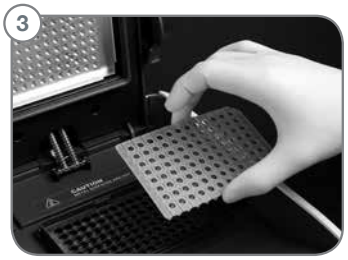
DNA typing of Class I and Class II HLA alleles.

Workflow

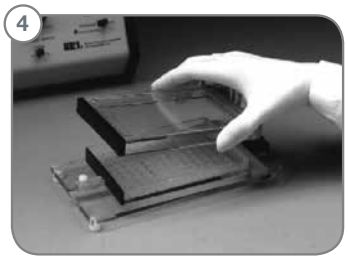


Add Taq polymerase D-mix tube.

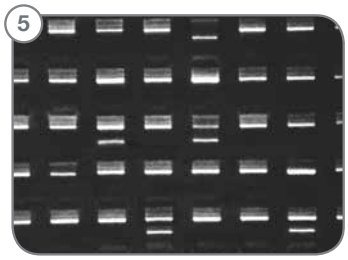
Add D-mix/Taq solution to the negative control well. Add DNA to the D-mix/Taq solution and add to the remaining wells.



Perform PCR.



Perform electrophoresis.



Photograph gel and analyze results.

Generic SSP Typing

Estimated typical workflow times	Hands-on time	Hands-off time
PCR set up	10 min	
PCR program		76 mins
Agarose gel preparation (can be completed prior to gel electrophoresis)	10 mins	
Gel loading	5 mins	
Gel electrophoresis	5 min	
	Total: 30 min	**Total: 76 mins**

Micro SSP Generic HLA Class I/II - DNA Typing Trays

These basic trays are used to assign either HLA Class I, or Class II alleles, or both Class I and Class II alleles simultaneously.

Product Name	Allele Coverage	Cat Id	Sale Unit	Tests
Class I				
Micro SSP Generic HLA Class I DNA Typing Tray	A,B,C Locus	SSP1L	10 trays	10 tests
Micro SSP HLA Class I A Locus Specific DNA Typing Tray	A Locus Specific	SSP1A	4 trays	12 tests
Micro SSP HLA Class I DNA Typing Tray	A, B Locus	SSP1AB	10 trays	10 tests
Micro SSP HLA Class I B Locus Specific DNA Typing Tray	B Locus Specific	SSP1B	4 trays	8 tests
Micro SSP HLA Class I C Locus Specific DNA Typing Tray	C Locus Specific	SSP1C	4 trays	16 tests
Class II				
Micro SSP Generic HLA Class II DNA Typing Tray	DRB Only	SSP2LB	10 trays	40 tests
Micro SSP Generic HLA Class II DNA Typing Tray	DQB Only	SSP2LQB1	4 trays	24 tests
Micro SSP Generic HLA Class II DNA Typing Tray	DRB/DQB	SSP2L	10 trays	30 tests
Micro SSP Generic HLA Class II DNA Typing Tray - DRB/DQB1/DPB1	DRB/DQB1/DPB1	SSPDRQP1	10 trays	10 tests
Class I & II				
Micro SSP Generic HLA Class I and II DNA Typing Tray	A,B,DR,DQ	SSPML02	4 trays	4 tests
Micro SSP Generic HLA Class I and II ABDR DNA Typing Tray	A,B,DR	SSPABDR	10 trays	10 tests

For In Vitro Diagnsotic Use.

Micro SSP High Resolution HLA Class II Trays

High Resolution trays offer more detailed subtyping information for Class II alleles (DRB1, 3, 4, 5, DPA1/DPB1, and DQA1). They allow for focused testing, eliminating ambiguities, and confirmation of questionable results.

Product Name	Allele Coverage	Cat Id	Sale Unit	Tests
Class II				
Micro SSP High Resolution HLA Class II DNA Typing Tray	DRB1,3,4,5	SSP2H	10 trays	10 tests
Micro SSP High Resolution HLA Class II DNA Typing Tray	DPA1/DPB1	SSP2HDP	4 trays	4 tests
Micro SSP High Resolution HLA Class II DNA Typing Tray	DQA1	SSP2HQA1	4 trays	8 tests

For In Vitro Diagnsotic Use.

Micro SSP Allele Specific HLA Class I/II Trays

Allele Specific trays are designed for HLA Class I and Class II sub-typing. They may be used alone or in combination with our generic and high resolution HLA typing trays.

Product Name	Cat Id	Sale Unit	Tests
Class I			
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*01/36	SSPR1-01	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*02	SSPR1-A2	4 trays	4 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*03	SSPR1-03	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*11	SSPR1-11	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*23	SSPR1-23	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*24	SSPR1-24	4 trays	4 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*25/34/66	SSPR1-25	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*26	SSPR1-26	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*29	SSPR1-29	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*30	SSPR1-30	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*31	SSPR1-31	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*32	SSPR1-32	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*33	SSPR1-33	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*68	SSPR1-68	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - A*74	SSPR1-74	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*07	SSPR1-07	4 trays	4 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*08	SSPR1-08	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*13	SSPR1-13	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*14	SSPR1-14	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*15	SSPR1-15	4 trays	4 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*18	SSPR1-18	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*27	SSPR1-27	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*35	SSPR1-35	4 trays	4 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*37	SSPR1-37	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*38/39	SSPR1-16	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*40	SSPR1-40	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*41	SSPR1-41	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*42	SSPR1-42	4 trays	8 tests

Micro SSP Allele Specific HLA Class I Trays (continued)

Product Name	Cat Id	Sale Unit	Tests
Class I			
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*44	SSPR1-44	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*45	SSPR1-45	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*46/67/81/82	SSPR1-46	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*47	SSPR1-47	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*48	SSPR1-48	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*49/50	SSPR1-21	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*51/52/78	SSPR1-05	4 trays	4 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*53	SSPR1-53	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*54-56	SSPR1-22	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*57	SSPR1-57	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B*58	SSPR1-58	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - C*01	SSPR1-C01	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - C*02	SSPR1-C02	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - C*03	SSPR1-C03	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - C*04	SSPR1-C04	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - C*05	SSPR1-C05	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - C*06	SSPR1-C06	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - C*07	SSPR1-C07	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - C*08	SSPR1-C08	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - C*12	SSPR1-C12	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - C*14	SSPR1-C14	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - C*15	SSPR1-C15	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - C*16/17/18	SSPR1-C16	4 trays	8 tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - Null Allele	SSP1-NL	4 trays	4 tests

For In Vitro Diagnsotic Use.

Micro SSP Allele Specific HLA Class II Trays

Product Name	Cat Id	Sale Unit	Tests
Class II			
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DQB1	SSPR2-Q1	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB1*01	SSPR2-101	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB1*03	SSPR2-103	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB1*04	SSPR2-104	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB1*07/09/10	SSPR2-107	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB1*08	SSPR2-108	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB1*11	SSPR2-111	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB1*12	SSPR2-112	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB1*13	SSPR2-113	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB1*14	SSPR2-114	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB1*15	SSPR2-115	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB1*16	SSPR2-116	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB3	SSPR2-3	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB4	SSPR2-4	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - DRB5	SSPR2-5	4 trays	8 tests
Micro SSP Allele Specific HLA Class II DNA Typing Tray - Null Allele	SSP2-NL	4 trays	24 tests

For In Vitro Diagnsotic Use.

Micro SSP AmbiStrips™

The Micro SSP™ AmbiStrips offers a simple PCR method for resolving Ambiguities and Null Alleles commonly found in allelic typing strings, or to distinguish between heterozygous variants of B27 typings. The eight well strip design lets users target single allele specificities as needed.

Features and Benefits

- Resolves common Class I Ambiguities including B27 variants
- Resolves common Class I and Class II Null Alleles
- Pre-Aliquoted, lyophilized, and dispensed primers in an 8 well strip format
- Each strip provides 8 tests for one allelic specificity
- Positive control primers in each well to indicate amplification
- Use all at once or at selected increments
- Pre-labeled wells allows for easy identification of allele specificity
- Optimized PCR buffer ready to use

Product Name	Resolved Ambiguities	Cat Id	Sale Unit	Tests
Class I				
Micro SSP AmbiStrips HLA Class I - A0101N	A*01:01:01:02N	SSPT1-E1	1 Strip	8 tests
Micro SSP AmbiStrips HLA Class I - A0104N+ A0321N+ A2411N	A*01:04N, A*03:21N, A*24:11N	SSPT1-A1	1 Strip	8 tests
Micro SSP AmbiStrips HLA Class I - A0301N	A*03:01:01:02N	SSPT1-D1	1 Strip	8 tests
Product Name	**Resolved Null Allele**	**Cat Id**	**Sale Unit**	**Tests**
Class I				
Micro SSP AmbiStrips HLA Class I - A2409N	A*24:09N	SSPT1-C1	1 Strip	8 tests
Micro SSP AmbiStrips HLA Class I - B1501N	B*15:01:01:02N	SSPT1-G4	1 Strip	8 tests
Micro SSP AmbiStrips HLA Class I - A6811N	A*68:11N	SSPT1-H4	1 Strip	8 tests
Micro SSP AmbiStrips HLA Class I - B5111N	B*51:11N	SSPT1-B1	1 Strip	8 tests
Micro SSP AmbiStrips HLA Class I - C0320N	C*03:20N	SSPT1-A1	1 Strip	8 tests
Micro SSP AmbiStrips HLA Class I - C0409N	C*04:09N	SSPT1-H2	1 Strip	8 tests
Product Name	**Resolved B27 Variants**	**Cat Id**	**Sale Unit**	**Tests**
Class I				
Micro SSP AmbiStrips HLA Class I - B27+ B73	B*27 with B*73:02	SSPT1-G1	1 Strip	8 tests
Micro SSP AmbiStrips HLA Class I - B27+ B81	B*27 with B*81:01	SSPT1-F1	1 Strip	8 tests

(continued)

Product Name	Resolved Null Allele	Cat Id	Sale Unit	Tests
Class II				
Micro SSP AmbiStrips HLA Class II - DRB40103N	DRB4*01:03:01:02N	SSPT1-G2	1 Strip	8 tests
Micro SSP AmbiStrips HLA Class II - DRB50108N	DRB5*01:08N	SSPT1-F2	1 Strip	8 tests
Micro SSP AmbiStrips HLA Class II - DRB50110N	DRB5*01:10N	SSPT1-E2	1 Strip	8 tests
Product Name	**Negative Control**	**Cat Id**	**Sale Unit**	**Tests**
Micro SSP AmbiStrips Negative Control		SSPT1-H1	1 Strip	8 tests

Negative Control sold separately
Each strip provides 8 tests.
Non-NMDP coded allele specificities found at www.onelambda.com

For In Vitro Diagnsotic Use.

DNA Size Markers

These are used as a reference in agarose gel electrophoresis for sizing PCR amplicons and restriction fragments less than 2564 bp in size. They consist of five DNA fragments with sizes of 50, 150, 400, 750 and 2564 base pairs.

Product Description	Cat Id	Sale Unit	Tests
DNA Size Marker	SSP-SM	vial	50 tests

Product Specifications	DNA Size Markers
Storage Temperature:	-80˚ to -20˚C
Shipping Considerations:	Dry ice
Packaging:	500 µl vial

For General Laboratory Use.

SSP D-Mix

SSP D-Mix, for use with our Micro SSP DNA Typing Tests, may also be ordered separately if additional volumes are required for use with Micro SSP products. Available in several volumes:

Product Description	Cat Id	Sale Unit
DNA SSP D-mix - 1000 µl vial	DM1000-5	5-pk
DNA SSP D-mix - 180 µl vial	DM180-5	5-pk
DNA SSP D-mix - 270 µl vial	DM270-5	5-pk
DNA SSP D-mix - 360 µl vial	DM360-5	5-pk
DNA SSP D-mix - 540 µl vial	DM540-5	5-pk

Product Specifications	SSP D-Mix
Storage Temperature:	-80˚ to -20˚C
Shipping Considerations:	Cold pack
Packaging:	5 vials in a foil bag

For In Vitro Diagnostic Use.

PCR Tray/Seal Bundle

Blank PCR trays and tray seals are packaged together for your convenience.

Product Description	Cat Id	Sale Unit
PCR Tray Seals	SSPSEA300	300 tray seals
PCR Tray/Seal Bundle	PCRTRAC	pkg

Product Specifications	PCR Tray/ Seal Bundle
Storage Temperature:	20˚ to 25˚ C
Shipping Considerations:	Ambient temperature
Packaging:	25 blank trays and 80 tray seals

For General Laboratory Use.

Micro SSP Gel System

This patented design has a small footprint and mirrors a 96-well PCR plate. The small box size reduces reagent requirements and has a shorter run time than conventional gel boxes. The system has a 108-well format and supports a 96-well microplate.

Product Description	Cat Id	Sale Unit
Micro SSP™ Gel System - 108 Wells	MGS108	each

For In Vitro Diagnostic Use

96-Well Transfer Device

Designed for use with 96-well plates or the Micro SSP Gel System, this device is easy to load, aspirate and wash. Made from durable, non-corrosive materials, it simplifies the reagent transfer process, reducing multiple transfer actions into one simple step. The device uses 96 pipettes to transfer reagents quickly and simultaneously across the tray, ensuring consistency throughout the array. Although suited for numerous applications when transferring from a 96-well plate, it is standardized for the One Lambda Micro SSP 96-well DNA typing trays.

Product Description	Cat Id	Sale Unit
96-Well Transfer Device	TRNDV96	each
96-Well Transfer Device Alignment Plate	TRNDVAP	each
96-Well Transfer Device Combo	TRNDCOMBO	combo

For General Laboratory Use.

PCR Pressure Pads

Our Micro SSP™ DNA typing system features a tray-sealing mechanism that uses a PCR pressure pad. The pads are available for the PE 9600, the PE 9700, and for MJ Research thermo cyclers.

Product Description	Cat Id	Sale Unit
Micro SSP PCR Pressure Pad (for 9600 PE Thermocycler, 96 wells)	SSPPAD	pad
Micro SSP PCR Pressure Pad (for 9600 PE Thermocycler, 96 wells)	SSPPAD5	5 pads
Micro SSP PCR Pressure Pad (for MJR Thermocycler, 96/384 wells)	SSPPADGRY	pad
Micro SSP PCR Pressure Pad (for MJR Thermocycler, 96/384 wells)	SSPPADGY5	5 pads
Micro SSP PCR Pressure Pad (for 9700 PE Thermocycler, 96/384 wells)	SSPPADTN	pad
Micro SSP PCR Pressure Pad (for 9700 PE Thermocycler, 96/384 wells)	SSPPADTN5	5 pads

For General Laboratory Use.

Micro SSP Seramates HLA Class

Seramates offer a focused approach to resolving questionable typings found in serology by providing a DNA backup to individually confirm selected specificities not always resolved by the HLA serological testing.
Note: All Seramates products, except SSPSB5, have been discontinued.

Product Name	Cat Id	Sale Unit	Tests
Micro SSP Allele Specific HLA Class I DNA Typing Tray - B5	SSPSB5	4 Trays	24

For Research Use Only. Not for use in diagnostic procedures.

SSP B27 Bulk Primer Set

The B27 Liquid Bulk Primer Sets use SSP technology to type for SSP alleles. The primers allow customers to configure their own typing tests and use only the primers they need.

Product Description	Cat Id	Sale Unit
SSP B27 Primer Set Combo (BSSPB2773, BSSPB2781)	BSSPB27C	combo

For Research Use Only. Not for use in diagnostic procedures.

Product Specifications	
Storage Temperature:	-65˚ to -20˚C
Shipping Considerations:	Dry Ice

Ancillary Products

One Lambda has a variety of ancillary products and reagents.

Taq Polymerase

Product Description	Cat Id	Sale Unit
Taq Polymerase - 30µl	TAQ30	bottle
Taq Polymerase - 50µl	TAQ50	bottle
Taq Polymerase - 75µl	TAQ75	bottle

For General Laboratory Use.

Product Specifications	
Storage Temperature:	-20˚ or below
Shipping Considerations:	Cold Pack
Packaging:	bottle

Buffer with Ethidium Bromide

Use this product with the Micro SSP Gel System for optimal results.

Product Description	Cat Id	Sale Unit
5XTB Buffer with Ethidium Bromide	5XTBE100	bottle

Product Specifications	Buffer with EB
Storage Temperature:	20˚ to 25˚ C
Shipping Considerations:	Ambient temperature
Packaging:	100 ml bottle

For General Laboratory Use.

SSP Wipe Test

SSP Class I and Class II wipe tests are used to test for PCR amplicon contamination. The wipe test primer set amplifies the internal control amplicon generated in the Micro SSP typing trays to determine if there is contamination by human DNA.

Product Description	Cat Id	Sale Unit	Tests
SSP Class I & II Wipe Test	SSPWT12	vial	100 tests

Product Specifications	SSP Wipe Test
Storage Temperature:	-65° to -20°C
Shipping Considerations:	Dry Ice
Packaging:	Primer (200µl vial) D-Mix (1,000 µl tube)

For General Laboratory Use.

G-RES™

A growing number of laboratories are evaluating next-generation sequencing (NGS) because it provides allele-level typing with minimal ambiguity. However, concerns remain over turnaround time, complexity of the workflow and data analysis, and cost of NGS consumables.

G-Res combines sequenced based typing (SBT) and reverse sequence specific oligonucleotide typing (rSSO); two technologies currently available in many laboratories; to produce single genotypes at G level resolution.

Features and Benefits

- Flexible – Can be applied to both low and high volume labs.
- Low Cost – Uses equipment and workflows already available in many labs
- Simple – Combination of SBT and rSSO data provides DNA sequence information

Product Description	Cat Id	Sale Unit	Tests
G-RES Typing Test	GRES	Assay	100 tests

For Research Use Only. Not for use in diagnostic procedures.

Cytokine Genotyping Tray and Primer Pack

Ongoing research continues to reveal the role of cytokine expression levels in organ transplants, cancer, AIDS, and autoimmune diseases. Cytokines are crucial in cellular communication and are key elements in controlling the immune response. One Lambda's Cytokine Genotyping Tray is a proven tool in identifying cytokine genotypes, while using the same simple testing procedure employed by our Micro SSP product line.

Product Description	Cat Id	Sale Unit	Tests
Cytokine Genotyping	CYTGEN	4 trays	24 tests
Cytokine Genotyping Primer Pack	PCYTGEN	each	100 tests

Storage	Cytokine Genotyping Trays	Cytokine Genotyping Primer Pack
Storage Temperature:	-65˚ C to -20˚ C	-65˚ C to -20˚ C
Shipping Considerations:	Cold pack	Dry Ice
Packing:	24 test package	100 test package

For Research Use Only. Not for use in diagnostic procedures.

KIR SSO Genotyping Test

Research suggests that natural killer cell immunoglobulin-like receptor (KIR) incompatibility may have an influence on bone marrow transplant patient outcome. Our KIR SSO Genotyping Test was designed to advance research on the impact of KIR on patient survival. Featuring Luminex xMAP technology, this test uses the same reverse SSO protocol used by our LABType products.

The KIR SSO Genotyping Test covers the following KIR genes and variants:		
2DL1	2DS1	3DL1
2DL2	2DS2	3DL2
2DL3	2DS3	3DL3
2DL4	2DS4*	3DS1
2DL5*	2DS5	2DP1**
		3DP1**

*Plus null alleles **Pseudogenes

KIR SSO Genotyping Test

Product Description	Cat Id	Sale Unit	Tests
KIR SSO Genotyping Test	RSSOKIR	Pkg	40 tests

Product Specifications	KIR SSO Genotyping Test
Storage Temperature:	-80˚ to -20˚ C
Shipping Considerations:	Cold Pack
Packing:	40 Test Package

For Research Use Only. Not for use in diagnostic procedures.

LinkSēq KIR Typing Kits

The LinkSēq family of KIR typing products are designed to advance research on the impact of KIR on patient survival rate. Killer cell immunoglobulin-like receptors (KIR) are a family of cell surface receptors found on human Natural Killer (NK) cells. Certain KIR types interact with Human Leukocyte Antigen (HLA) Class I molecules to inhibit the activity of NK cells while other KIR types can stimulate NK activity. Both HLA and KIR molecules are highly polymorphic. The LinkSēq™ KIR typing test is a genotyping system for identifying all 15 KIR genes and 2 pseudogenes including both full length and deleted forms of 3DP1 and 2DS4 and allele-specific variants in 3DL1, 2DL1, and others.

LinkSēq KIR Typing Kits

Product Description	Tray Type	Tests Per Kit	Cat ID
LinkSeq KIR Kit (1 Sample per Tray)	96 Well	10	5051R
LinkSeq KIR Kit (2 Sample per Tray)	96 Well	20	5052R
LinkSeq KIR 384 Kit (1 Sample per Tray)	384 Well	10	5351R
LinkSeq KIR 384 Kit (8 Sample per Tray)	384 Well	80	5358R

For Research Use Only. Not for use in diagnostic procedures.

SEROLOGY PRODUCTS

An industry vanguard in HLA tissue typing, One Lambda developed the first assays that accurately determine HLA antigens.

HLA Serological Typing

Serological HLA typing is a time honored methodology used in many laboratories around the world. One Lambda is recognized globally for its Terasaki Tissue Typing Trays, created by company founder Dr. Paul I. Terasaki. These typing trays were the first commercial assays capable of consistent and accurate determination of HLA antigens. As a proven technology, these assays are among the many products associated with One Lambda's pre-eminence in the field of HLA.

Our serological product line offers a broad spectrum of typing trays. In addition to the Terasaki T1, T2 and T3 NIH method typing trays, we offer a variety of specialty products that include locus specific, ethnic, supplemental and dry trays. One Lambda is the only commercial company that offers Lambda Monoclonal Typing Trays™ (LMT), a selection of typing trays that are completely composed of monoclonal antibodies pre-mixed with complement.

Our tissue typing family also includes lymphocyte isolation reagent products, LymphoKwik™ and FluoroBeads™, as well as other ancillary reagents optimized for use with HLA typing trays.

Tissue Typing Trays

One Lambda's Tissue Typing Trays produce accurate HLA typing of Class I and/or Class II antigens. Using a 72 well format, each tray includes both positive and negative controls using the NIH complement dependent cytotoxicity (CDC) method in 1.5 hours. Designed for use with either staining technique, eosin dye exclusion or fluorescence, each tray well contains 1 µl of specific antiserum and 5 µl of heavy mineral oil. Dry Tissue Typing Trays contain 1µl of dried HLA monoclonal antibody in each well. The Dry Class II trays also include anti-B and anti-T lymphocyte controls. Pre-screened rabbit complement is provided with all trays.

Features and Benefits

- Produces accurate typing assignments
- Supports consistent results due to long-lasting lots
- Offers a diverse tray selection
- Includes well characterized antisera
- May be used with both eosin dye exclusion and fluorescent techniques
- Kit includes prescreened rabbit complement
- 72-well Terasaki tray format

Principle

Viable lymphocytes are incubated with a complement-binding antibody. If the lymphocytes express an antigen recognized by a specific antibody, the Fab portion of the antibody binds to the antigen, forming the antigen-antibody complex. After these complexes have formed, rabbit complement is added. The C1q and Ca++ from the complement binds to the FC portion of the antibody. One IgM antibody is required to bind one molecule of C1q or two IgG antibodies are required to bind one molecule of C1q. Binding of C1q with antigen-antibody complexes initiates the complement cascade that leads to cell lysis. In a negative reaction, the majority of lymphocytes appear intact. In a positive reaction, the majority of lymphocytes will be lysed. A score is assigned, depending on the percent of cells that have been lysed.

Intended Use • Applications

For use in the determination of HLA cell surface antigens with a complement dependent microlymphocytotoxic technique.

Workflow/Estimated Time

*Does not apply to Dry Trays.

1

2/10^6 cell/ml lymphocytes

2

Dispense 1 µl of lymphocytes into each well

3

Incubate for 30 minutes at room temperature (20-25 ° C)

4

Dispense 5 µl of rabbit complement into each well

5

Incubate for 1 hour at room temperature (20-25 ° C)

6

Add 10 µl of Stain-Fix ™ or 5 µl of FluoroQuench ™ into each well

7

Read trays

Product Specifications	Tissue Typing Trays	Dry Tissue Typing Trays
Storage Temperature:	-65° C or below	2° to 5° C or below
Shipping Considerations:	Dry ice	Cold pack
Packaging:	10 trays per box	10 trays per box

For In Vitro Diagnostic Use.

Tissue Typing Trays

Product Name	Cat Id	Tests
Terasaki HLA-ABC First Tissue Typing Tray	T1-72	10 tests
Terasaki HLA-ABC Second Tissue Typing Tray	T2-72	10 tests
Terasaki HLA-ABC Third Tissue Typing Tray	T3-72	10 tests
Terasaki HLA-C Locus Tissue Typing Tray	C72	10 tests
Terasaki HLA-ABC Oriental Tissue Typing Tray	OT-72	10 tests
Terasaki HLA-A Locus Supplement Tissue Typing Tray	AS72	10 tests
Terasaki HLA-B Locus Supplement Tissue Typing Tray	BS72	10 tests
Terasaki HLA Class I Tissue Typing Tray Set	TM144	20 tests
Terasaki HLA Class II Tissue Typing Tray	DR72	10 tests

Dry Tissue Typing Trays

Product Name	Cat Id	Tests
Terasaki HLA Class I Dry Tissue Typing Tray	AB72D	10 tests
Terasaki HLA-B27 Dry Tissue Typing Tray	27-06D	10 tests
Terasaki HLA Class II Dry Tissue Typing Tray	DR72D	10 tests
Terasaki HLA Class I Asian Dry Tissue Typing Tray	ASN72D	10 tests

For In Vitro Diagnostic Use.

Monoclonal Trays™

Lambda Monoclonal Trays™, a One Lambda exclusive, are an extremely dependable tool in determining HLA Class I or Class II antigens. Each tray is comprised of monoclonal antibodies, rather than human anti-serum; each tray has both positive and negative controls using the CDC method in one hour. Designed for use with either staining technique, eosin dye exclusion or fluorescence, each tray well contains one µl of monoclonal antibodies premixed with rabbit complement and five µl of heavy mineral oil.

Features and Benefits

- Offers batch-to-batch consistency
- Eliminates complement QC testing
- Produces test results in one hour or less
- Can be used with both dye exclusion and fluorescent techniques
- Provides a consistent source of reagents
- Monoclonal antibodies and complement are pre-mixed in each well

Intended Use • Applications

For use in the determination of HLA Class I and Class II antigens with a complement dependent microlymphocytotoxic technique.

Workflow/Estimated Time

1

Add 1µl of lymphocytes.
Thaw the LMT™(s) at room temperature. Dispense 1 µl of lymphocytes into each well. Incubate for 1 hour.

2

Stop Trays.
Add the appropriate staining/fixing reagent to the LMT™ (s). The reagent for this purpose is FluoroQuench™ which has been standardized for use with the LMT™.

LMT HLA Class I/II

Product Name	Cat Id	Package	Tests
Class I			
Lambda Monoclonal Trays HLA Class I - 96 well	LM96	10 trays	10 tests
Lambda Monoclonal Trays First HLA Class I	LM172	10 trays	10 tests
Lambda Monoclonal Trays Second HLA Class I	LM272	10 trays	10 tests
Lambda Monoclonal Trays Set HLA Class I	2LM72	10 sets	20 tests
Lambda Monoclonal Trays Third HLA Class I	LM372	10 trays	10 tests
Lambda Monoclonal Trays HLA Class I (Oriental)	LM72OR	10 trays	10 tests
Lambda Monoclonal Trays Set HLA Class I (A,B) - 2-tray set	LM144	10 sets	20 tests
Class II			
Lambda Monoclonal Trays First HLA Class II	MDR172	10 trays	10 tests
Lambda Monoclonal Trays Second HLA Class II	MDR272	10 trays	10 tests

Product Specifications	**Lambda Monoclonal Trays™**
Storage Temperature:	-65˚ C or below
Shipping Considerations:	Dry ice
Packaging:	10 trays per box

For In Vitro Diagnostic Use.

Reagents

LymphoKwik™

These reagents provide a unique method for isolating specific lymphocyte populations. Unlike standard density gradients, LymphoKwik uses a combination of monoclonal antibodies, complement and a stable density gradient to isolate the desired lymphocyte population. The procedure provides high purity and viability, saving valuable time in the process.

Lympho-Kwik Cell Isolations

Product Name	Cat Id	Package	Tests
Lympho-Kwik Mononuclear Cell, 50 isolations	LK-50-MN	Bottle	50 tests
Lympho-Kwik T Lymphocyte, 25 isolations	LKT25	Bottle	25 tests
Lympho-Kwik T Lymphocyte, 50 isolations	LK-50-T	Bottle	50 tests
Lympho-Kwik T/B Lymphocyte, 25 isolations	LKTB25	Bottle	25 tests
Lympho-Kwik T/B Lymphocyte, 50 isolations	LK-50-TB	Bottle	50 tests

Product Specifications LymphoKwik	
Storage Temperature:	-65˚ C or below
Shipping Considerations:	Dry ice
Packaging:	20 ml bottle (25 isolations) or 40 ml bottle (50 isolations)

For In Vitro Diagnostic Use.

FluoroBeads

FluoroBeads T and FluoroBeads B Isolation Reagents are supraparamagnetic particles coupled to monoclonal antibodies specific to T or B lymphocytes, respectively. The end result is a pure T or B lymphocyte population in less than 10 minutes.

FluoroBeads feature a particle size less than one micron in diameter, minimizing cell membrane damage, facilitating the use of automation, and increasing fluorescent intensities.

FluoroBeads Isolation Reagents

Product Name	Cat Id	Package	Tests
FluoroBeads T Lymphocyte - 25 isolations	FB1-25	bottle	25 tests
FluoroBeads T Lymphocyte - 100 isolations	FB1-100	bottle	100 tests
FluoroBeads T Developer (10X)	FB1-DEV	bottle	
FluoroBeads B Lymphocyte - 25 isolations	FB2-25	bottle	25 tests
FluoroBeads B Lymphocyte - 100 isolations	FB2-100	bottle	100 tests
Phosphate Buffered Saline/Citrate Reagent	PC1-500	bottle	
FluoroBeads Magnet	FBAMAG6+6	box	

Product Specifications	FluoroBeads	Magnets	PBS/Citrate Developer
Storage Temperature:	2˚ to 5˚ C	Not applicable	2˚ to 5˚ C
Shipping Considerations:	Cold pack	Strong magnetic field generated	Ambient temperature
Packaging:	Box	Individually boxed	Box

For In Vitro Diagnostic Use.

One Lambda has developed a host of ancillary reagents optimized for use as accessories with our HLA typing trays. These products include rabbit complement, staining, quenching and fixing reagents, mineral oil, AHG and controls.

Bulk Rabbit Complement

Our Class I and Class II rabbit complements are screened for activity and cytotoxicity using highly selective lymphocyte panels and characterized antisera to minimize lot-to-lot variation.

Rabbit serum is the most effective source of complement for HLA typing, antibody screening and crossmatching. Complement effectiveness is related to the titer, and to complement factors and heterophile antibodies.

Product Name	Cat Id	Package
Class I Complement - 5 ml	CABC-5	bottle
Class I Complement - 50 ml	CABC-50	bottle
Class II Complement - 5 ml	CDR-5	bottle
Class II Complement - 50 ml	CDR-50	bottle
Lyophilized Class I Complement - 1 ml	CABC-1D	bottle
Lyophilized Class II Complement - 1 ml	CDR-1D	bottle

Product Specifications	Frozen Complement	Lyophilized Complement
Storage Temperature:	-65˚ C or below	2˚ to 5˚ C
Shipping Considerations:	Dry ice	Ambient temperature
Packaging:	Complement: 5 ml or 50 ml bottle	1 ml bottle

For In Vitro Diagnostic Use.

FluoroQuench Staining/Quench Reagent

FluoroQuench is a unique mixture of fluorescent dyes and quench; used to stain lymphocytes, quench background fluorescence and stop the reaction in one simple step. FluoroQuench AO/EB distinguishes both live and dead cells by dye color and preserves the reaction in a micrototoxicity assay. No additional dyes are required. FluoroQuench contains a fixative.

FluoroQuench Acridine Orange/Ethidium Bromide FQAEZ100

Product Name	Cat Id	Package
FluoroQuench Acridine Orange/Ethidium Bromide - 100 ml	FQAE100	bottle
FluoroQuench Acridine Orange/Ethidium Bromide - 500 ml	FQAE500	bottle
FluoroQuench Acridine Orange/Ethidium Bromide - 2000 ml	FQAE2000	4-500 ml bottles
FluoroQuench Plus Acridine Orange/Ethidium Bromide - 100 ml	FQZAE100	bottle

Product Specifications	Fluoroquench
Storage Temperature:	2˚ to 5˚ C
Shipping Considerations:	Cold Pack
Packaging:	100 ml bottles 500 ml bottles

For In Vitro Diagnostic Use.

Mineral Oil

Mineral oil is used in the microcytotoxicity assay to prevent the evaporation of antisera dispensed onto a Terasaki Typing Tray. One Lambda offers a heavy mineral oil that prevents evaporation and facilitates the mixing of reagents in each well.

Product Name	Cat Id	Package
Heavy Mineral Oil, 1 gallon	MO	bottle

Product Specifications	Mineral Oil
Storage Temperature:	20˚ to 25˚ C
Shipping Considerations:	Ambient temperature
Packaging:	1 gallon bottle

For General Laboratory Use.

Dynabeads

Gentle, tube-based magnetic separation with Dynabeads is the technology of choice when you want to isolate high yields of pure, viable and functional cells. Your cells are not exposed to the stress of going through a dense column, and there's no risk of your results being affected by the isolation method.

Reduce variability and get truly reliable and reproducible lab results on which to build your studies, diagnostic assays and therapeutic protocols.

Product Description	Cat Id
Dynabeads HLA Class II - 20 isolations	21903
Dynabeads HLA Class II - 50 isolations	21904

For In Vitro Diagnostic Use.

Product Name	Cat Id
Dynabeads HLA Class I - 20 isolations	21001D
Dynabeads HLA Class I - 50 isolations	21002D
Dynabeads HLA Class II - 20 isolations	21003
Dynabeads HLA Class II - 50 isolations	21004D

For In Vitro Diagnostic Use. (Limited to distribution in EU only).

Dynabeads for Transplant research

Product Description	Cat Id
Dynabeads HLA Class I - 20 isolations	21901BD
Dynabeads HLA Class I - 50 isolations	21902BD

For Research Use Only. Not for use in diagnostic procedures.

Product Specifications	Dynabeads HLA Class I & II
Storage Temperature:	2˚ to 8˚ C
Shipping Considerations:	Cold Pack
Amount:	20, 50 isolations

B27 Monoclonal Antibody

Product Name	Cat Id	Tests	Sale Unit
HLA Class I Fluorescein Isothiocyanate (FITC) Conjugated Monoclonal Antibody	HLA1F50X	50 test	vial
HLA-B27 Fluorescein Isothiocyanate (FITC) Conjugated Monoclonal Antibody	B27F50X	50 test	vial
Mouse IgG2b Fluorescein Isothiocyanate (FITC) Conjugated Monoclonal Antibody	G2BF50X	50 test	vial

For In Vitro Diagnostic Use.

B27 Monoclonal antibody for transplant research

HLA B7, 27 IgG Biotinylated Conjugated Monoclonal Antibody	BIH1453	25 test	vial
HLA B7, 27 IgG Fluorescein Isothiocyanate (FITC) Conjugated Monoclonal Antibody	FH1453	25 test	vial

For Research Use Only. Not for use in diagnostic procedures.

Serology Reagents for Transplant Research

Cytotoxic Controls

Designed for the microcytotoxicity assay, One Lambda cytotoxic controls are used to test various conditions from the purity of a lymphocyte preparation to the reactivity of complement. One Lambda cytotoxic controls are provided in frozen form in 1 ml aliquots. The negative control is from a nontransfused AB male donor(s).

Product Name	Cat Id	Package
Class I		
Anti-T Lymphocyte, IgG (Not for use with FluoroBeads cell preparations)	ATSG	bottle
Anti-T Lymphocyte, IgM (Not for use with FluoroBeads cell preparations)	ATSM	bottle
Anti-T Lymphocyte, IgM (For use with FluoroBeads cell preparations)	ATSMX	bottle
Class II		
Anti-B Lymphocyte, IgG	ABSG	bottle
Anti-B Lymphocyte, IgM	ABSM	bottle
Class I & II		
Anti-Monocyte, IgM	AMSM	bottle
Anti-Granulocyte, IgM	AGSM	bottle
Anti-Lymphocyte, IgG	ALSG	bottle
Anti-Lymphocyte, IgM	ALSM	bottle
Negative Control	NS	bottle

Product Specifications	Controls
Storage Temperature:	-20˚ C
Shipping Considerations:	Dry ice
Packaging:	1 ml bottle

For Research Use Only. Not for use in diagnostic procedures.

Goat IgG Anti-Human Kappa

Goat IgG Anti-Human Kappa augments the cytotoxic reactivity of HLA antibodies, cytotoxic negative absorption positive (CYNAP) reactive antibodies, by at least 4 to 8-fold, depending on the titer of HLA serum.

Product Name Class I & II	Cat Id	Package
Goat IgG Anti-Human Kappa - 1 ml	AHG1	tube
Goat IgG Anti-Human Kappa - 50 ml	AHG50	tube

Product Specifications	IgG
Storage Temperature:	-65˚ C or below
Shipping Considerations:	Dry ice
Packaging:	IgG: 1 ml or 50 ml tube

For Research Use Only. Not for use in diagnostic procedures.

FITC Conjugated Monoclonal Antibodies

Product Name	Isotype	Cat Id	Tests
HLA A2,A28 IgG2a Fluorescein Isothiocyanate (FITC) Conjugated Monoclonal Antibody	IgG2a	FH0037	25 tests
HLA A9 IgG2b Fluorescein Isothiocyanate (FITC) Conjugated Monoclonal Antibody	IgG2b	FH0964	25 tests
HLA B7,27 IgG Fluorescein Isothiocyanate (FITC) Conjugated Monoclonal Antibody	IgG	FH1453	25 tests
HLA B8 IgG2b Fluorescein Isothiocyanate (FITC) Conjugated Monoclonal Antibody	IgG2b	FH0536A	25 tests
HLA B12 IgG2b Fluorescein Isothiocyanate (FITC) Conjugated Monoclonal Antibody	IgG2b	FH0066	25 tests
HLA Bw4 IgG2a Fluorescein Isothiocyanate (FITC) Conjugated Monoclonal Antibody	IgG2a	FH0007	25 tests
HLA Bw6 IgG3 Fluorescein Isothiocyanate (FITC) Conjugated Monoclonal Antibody	IgG3	FH0038	25 tests
HLA Class II IgG2a Fluorescein Isothiocyanate (FITC) Conjugated Monoclonal Antibody	IgG2a	FH0002	25 tests

Conjugated HLA Monoclonal Antibodies are supplied in liquid form.
For Research Use Only. Not for use in diagnostic procedures.

Biotinylated Monoclonal Antibodies

Product Name	Isotype	Cat Id	Tests
HLA A1,36 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0331	25 tests
HLA A2 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0648	25 tests
HLA A2, 28 IgG2a Biotinylated Conjugated Monoclonal Antibody	IgG2a	BIH0037	25 tests
HLA A3 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0269	25 tests
HLA A9 IgG2b Biotinylated Conjugated Monoclonal Antibody	IgG2b	BIH0964	25 tests
HLA A11 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0084	25 tests
HLA A25, 26 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0048	25 tests
HLA A29 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0155	25 tests
HLA A30,31 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0087	25 tests
B7, 27 Biotinylated Conjugated Monoclonal Antibody	IgG	BIH1453	25 tests
B51, 52, 7801 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0209	25 tests
B8 IgG2b Biotinylated Conjugated Monoclonal Antibody	IgG2b	BIH0536A	25 tests
HLA B13 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0261	25 tests
HLA B13,15 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0129	25 tests
HLA B15,57 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0507	25 tests
HLA B57,58 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0243	25 tests
HLA Bw4 IgG2a Biotinylated Conjugated Monoclonal Antibody	IgG2a	BIH0007	25 tests
HLA Bw6 IgG3 Biotinylated Conjugated Monoclonal Antibody	IgG3	BIH0038	25 tests
HLA DR4 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0453B	25 tests

Biotinylated Monoclonal Antibodies (continued)

Product Name	Isotype	Cat Id	Tests
HLA DR7 IgM Biotinylated Conjugated Monoclonal Antibody	IgM	BIH0108	25 tests
HLA Class I IgG1 Biotinylated Conjugated Monoclonal Antibody	IgG1	BIH1112	25 tests
HLA Class II IgG2a Biotinylated Conjugated Monoclonal Antibody	IgG2a	BIH0002	25 tests

Conjugated HLA Monoclonal Antibodies are supplied in liquid form.
For Research Use Only. Not for use in diagnostic procedures.

Unconjugated Lyophilized Monoclonal Antibodies

These antibodies are supplied in lyophilized form (reconstitute to 100ul with distilled water). Specificity was determined at a 1:10 dilution by the microcytotoxicity assay using standard NIH conditions.

Product Name	Isotype	R-Value	Cat Id
HLA Class I			
Bulk Monoclonal Antibody A1,11,26+ IgM	IgM	1.000	0544HA
Bulk Monoclonal Antibody A1,36 IgM	IgM	0.969	0289HA
Bulk Monoclonal Antibody A2 IgM	IgM	0.966	0397HA
Bulk Monoclonal Antibody A2 IgM	IgM	0.982	0475HA
Bulk Monoclonal Antibody A2 IgG	IgG	0.937	0791HA
Bulk Monoclonal Antibody A2,3,29+ IgM	IgM	0.818	0887HA
Bulk Monoclonal Antibody A2,24 IgM	IgM	0.843	0138HA
Bulk Monoclonal Antibody A2,25,32+ IgM	IgM	1.000	0578AHA
Bulk Monoclonal Antibody A2,28+ IgM	IgM	0.934	0189HA
Bulk Monoclonal Antibody A2,69 IgG	IgG	0.949	0131HA
Bulk Monoclonal Antibody A2,+/-69 IgM	IgM	0.931	0335HA
Bulk Monoclonal Antibody A2,B5 IgM	IgM	0.932	0840AHA
Bulk Monoclonal Antibody A2,B17 IgM	IgM	0.967	0543HA
Bulk Monoclonal Antibody A2,B17 IgM	IgM	0.886	0580BHA
Bulk Monoclonal Antibody A3 IgM	IgM	0.900	0141HA
Bulk Monoclonal Antibody A3 IgM	IgM	0.949	0170HA

Unconjugated Lyophilized Monoclonal Antibodies (continued)

Product Name	Isotype	R-Value	Cat Id
HLA Class I			
Bulk Monoclonal Antibody A3 IgM	IgM	1.000	0378HA
Bulk Monoclonal Antibody A9,25,32 IgM	IgM	0.966	0341HA
Bulk Monoclonal Antibody A9,32,B13+ IgM	IgM	0.745	0549HA
Bulk Monoclonal Antibody A10,11+ IgM	IgM	0.942	0553HA
Bulk Monoclonal Antibody A10,28,B75+ IgM	IgM	0.803	0660HA
Bulk Monoclonal Antibody A10,B62,71+ IgM	IgM	0.840	0662HA
Bulk Monoclonal Antibody A11, +/-3 IgG	IgG	0.805	0284HA
Bulk Monoclonal Antibody A23,24 IgG2b	IgG2b	0.982	0041HA
Bulk Monoclonal Antibody A23,24 IgM	IgM	0.765	0497HA
Bulk Monoclonal Antibody A24,11,2403+ IgM	IgM	0.783	0586AHA
Bulk Monoclonal Antibody A25,26,34 IgM	IgM	0.886	0514AHA
Bulk Monoclonal Antibody A25,32 IgM	IgM	1.000	0136HA
Bulk Monoclonal Antibody A25+ IgG	IgG	0.768	0473HA
Bulk Monoclonal Antibody A25,26,34,B71,62 IgM	IgM	0.808	0102HA
Bulk Monoclonal Antibody A29 IgM	IgM	0.722	0334HA
Bulk Monoclonal Antibody A30,31 IgM	IgM	0.927	0273HA
Bulk Monoclonal Antibody A30,31 IgM	IgM	0.876	0361HA
Bulk Monoclonal Antibody A33,B8 IgM	IgM	0.740	0612HA
Bulk Monoclonal Antibody A34,B71,-/+A26 IgM	IgM	0.660	0119HA
Bulk Monoclonal Antibody B5,49,56+ IgM	IgM	0.702	0070HA
Bulk Monoclonal Antibody B7,27,42+ IgM	IgM	0.860	0884HA
Bulk Monoclonal Antibody B8 IgM	IgM	1.000	0059HA
Bulk Monoclonal Antibody B8 IgM	IgM	1.000	0201HA
Bulk Monoclonal Antibody B8 IgM	IgM	1.000	0404HA
Bulk Monoclonal Antibody B8,14 IgM	IgM	0.953	0332HA
Bulk Monoclonal Antibody B12,76+ IgG	IgG	0.691	0735AHA
Bulk Monoclonal Antibody B13 IgM	IgM	1.000	0211BHA
Bulk Monoclonal Antibody B13,62,15 IgG	IgG	0.554	0044HA

Unconjugated Lyophilized Monoclonal Antibodies (continued)

Product Name	Isotype	R-Value	Cat Id
Bulk Monoclonal Antibody B14+ IgM	IgM	0.684	0833HA
Bulk Monoclonal Antibody B14 IgM	IgM	0.631	0277HA
Bulk Monoclonal Antibody B17 IgM	IgM	1.000	0196HA
Bulk Monoclonal Antibody B17,35,44+ IgM	IgM	0.823	0786BHA
Bulk Monoclonal Antibody B21,70,55+ IgM	IgM	0.803	0495HA
Bulk Monoclonal Antibody B27,44,47+ IgG	IgG	0.614	0792AHA
Bulk Monoclonal Antibody B35,57,75,77+ IgM	IgM	0.609	0789AHA
Bulk Monoclonal Antibody B44,75,17+ IgM	IgM	0.754	0601HA
Bulk Monoclonal Antibody B48,60+ IgM	IgM	0.740	0831HA
Bulk Monoclonal Antibody Bw4,A9,32 IgM	IgM	1.000	0548HA
Bulk Monoclonal Antibody Bw6,B77	IgM	0.935	0149AHA
HLA Class II			
Bulk Monoclonal Antibody DR3,6+ IgM	IgM	0.750	0260HA
Bulk Monoclonal Antibody DR3,6 IgG	IgG	–	0219HA
Bulk Monoclonal Antibody DR4+ IgM	IgM	–	0222HA
Bulk Monoclonal Antibody DR7+ IgM	IgM	0.740	0757AHA
Bulk Monoclonal Antibody DR8,12+ IgM	IgM	0.900	0834AHA
Bulk Monoclonal Antibody DR8,12+ IgM	IgM	0.830	0861HA
Bulk Monoclonal Antibody DR9+ IgM	IgM	0.860	0399HA
Bulk Monoclonal Antibody DR11 IgG	IgG	0.820	0845HA
Bulk Monoclonal Antibody DR11 IgM	IgM	0.900	0854HA
Bulk Monoclonal Antibody DR13+ IgG	IgG	0.750	0258HA
Bulk Monoclonal Antibody DR15,16 IgG	IgG	0.700	0218HA
Bulk Monoclonal Antibody DR15,16 IgM	IgM	0.920	0435AHA
Bulk Monoclonal Antibody DR17,18 IgM	IgM	0.900	0356HA
Bulk Monoclonal Antibody DR17,18 IgM	IgM	0.870	0500HA
Bulk Monoclonal Antibody DR52 IgM	IgM	0.840	0635HA
Bulk Monoclonal Antibody DR52+ IgM	IgM	0.760	0781HA
Bulk Monoclonal Antibody DR53+ IgG	IgG	0.610	0275HA

Unconjugated Lyophilized Monoclonal Antibodies (continued)

Product Name	Isotype	R-Value	Cat Id
Bulk Monoclonal Antibody DQ1,7 IgM	IgM	0.850	0265HA
Bulk Monoclonal Antibody DQ3+ IgM	IgM	0.830	0782HA
Bulk Monoclonal Antibody DQ4+ IgM	IgM	0.840	0736HA
Bulk Monoclonal Antibody DQ6+ IgM	IgM	0.750	0237HA
Bulk Monoclonal Antibody DQ7 IgM	IgM	0.910	0248HA
Bulk Monoclonal Antibody DQ7 IgM	IgM	0.870	0249AHA
Bulk Monoclonal Antibody DQ7 IgM	IgM	0.870	0267HA
Bulk Monoclonal Antibody DQ7 IgM	IgM	0.910	0280HA
Bulk Monoclonal Antibody DQ7+ IgM	IgM	0.880	0769AHA
Bulk Monoclonal Antibody DQ7 IgM	IgM	0.880	0778HA

Product Specifications	**FITC/Biotinylated**	**Unconjugated/Lyophilized**
Storage Temperature:	2˚ to 5˚ C	2˚ to 5˚ C
Shipping Considerations:	Cold Pack	Ambient temperature
Packaging:	Vial in foil bag	Vial in foil bags

For Research Use Only. Not for use in diagnostic procedures unless specified otherwise.

Ancillary

Terasaki Cover Slides

FluoroSeal™ and InstaSeal™ Cover Slides are designed specifically for One Lambda's 60- and 72-well Terasaki Typing Trays. When applied to the Terasaki Typing Tray, a barrier is formed over the reaction area to prevent skin contact with reagents.

FluoroSeal™ Cover Slides: Used in fluorescence testing, black plastic cover slides minimize photo-bleaching.

InstaSeal™ Cover Slides: Used in standard dye exclusion testing, clear plastic covers provide a clear, distortion-free view of live and dead cells.

Product Name	Cat Id	Package
Insta-Seal™ Cover Slides - 250 slides	TIS-250U	box
IFluoroSeal™ Cover Slides - 250 slides	TFS-250U	box

For General Laboratory Use.

Product Specifications	Terasaki Cover Slides
Storage Temperature:	20˚ to 25˚ C
Shipping Considerations:	Ambient temperature
Packaging:	250 slides per box

Terasaki Trays

Terasaki Typing Trays are available with in 60-, 72-, and 96-well sizes, in packages of 100 each. The plastics used in producing these trays are the same materials used by One Lambda for Terasaki Tissue Typing Trays and other One Lambda products.

Product Name	Cat Id	Package
Terasaki Tray (STD) 60 well - 100 trays	TH60-100	box
Terasaki Tray (STD) 72 well - 100 trays	TH72-100	box
Terasaki Tray (STD) 96 well - 100 trays	TH96-100	box

For General Laboratory Use.

Transfusion & Transfusion Research

Antibody Detection For Transfusion Diagnostics

LABScreen Multi

LABScreen Multi is used for screening for antibodies against both HLA Class I, Class II, and HNA3a (Human Neutrophil Antigens). Antibodies against HNA are implicated in a variety of clinical conditions, including TRALI (Transfusion Related Acute Lung Injury). All LABScreen products qualitatively measure the presence of specific antibodies in a human serum or plasma sample.

Product Description	Cat Id	Sale Unit	Tests
LABScreen Multi	LSMUTR	pkg	100 tests

For In Vitro Diagnostic Use.

Molecular Typing For Transfusion Diagnostics

HNA Genotyping Tray

Human Neutrophil antigens (HNA) are involved in a variety of clinical conditions, including immune neutropenias, transfusion related acute lung injury (TRALI), refractoriness to granulocyte transfusions, and febrile transfusion reactions. Due to the unavailability of certain HNA antibodies and type specific neutrophil antigens, serological methods are time consuming and limited in detection. With One Lambda's sequence specific primer PCR based genotyping tray, blood centers can effectively assign HNA alleles, including HNA-3a.

Product Description	Cat Id	Sale Unit	Tests
HNA Genotyping Tray	HNAGEN	4 trays	8 tests

For In Vitro Diagnostic Use.

Storage	HNA Genotyping Tray
Storage Temperature:	-80˚ to -20˚ C
Shipping Considerations:	Cold Pack
Packing:	4 Trays in a Box

LinkSēq™ Typing Kits

Fast and Easy Real-time PCR Genotyping

LinkSēq is a rapid genotyping method with a simple workflow that prevents post-amplification contamination. With a fast turnaround time of only 90 minutes, and minimal hands-on time, your lab's productivity will greatly increase.

With LinkSēq, you can achieve high throughput. By using inexpensive thermal cyclers for the first 60 minutes of the amplification step and only 10 minutes on a real time PCR instrument, you can type multiple samples per hour with unmatched simplicity. Products include HPA and ABO.

Features and Benefits

- More productivity with less effort
- Fewer repeats with less steps and reproducible results
- SureTyper software for robust and automated analysis

LinkSēq™ HPA Typing Kits

Human Platelet Antigens (HPA) are glycoproteins expressed on platelet membranes. These HPAs can stimulate the production of alloantibodies after transfusion. In subsequent blood transfusions, alloantibodies against donor HPA may cause immunological reactions in the recipient's blood, resulting in the lysis of the transfused platelets and thrombocytopenia. The LinkSēq HPA kits provide HPA typing for HPA-1 through HPA-11, and HPA 15.

Product Description	Tray Type	Tests per Kit	Cat ID
LinkSeq HPA Kit (1 Sample per Tray)	96 Well	10	6001C
LinkSeq HPA Kit (2 Sample per Tray)	96 Well	20	6002C
LinkSeq HPA 384 Kit (2 Sample per Tray)	384 Well	20	6302C
LinkSeq HPA 384 Kit (8 Sample per Tray)	384 Well	80	6308C

For In Vitro Diagnostic Use. European Union Only

Product Description	Tray Type	Tests per Kit	Cat ID
LinkSeq HPA Kit (1 Sample per Tray)	96 Well	10	6001R
LinkSeq HPA Kit (2 Sample per Tray)	96 Well	20	6002R
LinkSeq HPA 384 Kit (2 Sample per Tray)	384 Well	20	6302R
LinkSeq HPA 384 Kit (8 Sample per Tray)	384 Well	80	6308R

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Molecular Typing For Transfusion Research

LinkSēq™ ABO

ABO alleles encode the enzyme Glycosyltransferase, which adds sugar groups to the surface of red blood cells (RBC) and other cells. ABO has been implicated in tissue rejection as well as adverse transfusion reactions. Many A sub-groups involve a weakly expressed A antigen, which can cause discordant serological reactions in forward and reverse typing. Our ABO products enable you to get results from problematic samples, and to resolve A, B and O subgroups.

Features and Benefits

- Identify weakly expressed phenotypes
- Identify possible Bombay phenotype
- Get results from problem samples”

Product Description	Tray Type	Tests per Kit	Cat ID
LinkSēq ABO Kit (1 sample per tray)	96-well	10	6021R
LinkSēq ABO Kit (2 samples per tray)	96-well	20	6022R
LinkSēq ABO 384 Kit (1 sample per tray)	384 well	10	6321R
LinkSēq ABO 384 Kit (8 samples per tray)	384 well	80	6328R

For Research Use Only. Not for use in diagnostic procedures.

INSTRUMENTS & SOFTWARE

Simplify laboratory procedures and diagnostic analysis with One Lambda's automation and software solutions.

Automation and **Software Flexibility**

Workflow, effectiveness and the optimal use of resources are central to modern laboratory operations. One Lambda's automation and software products help managers to streamline processes for increased efficiency. Designed with function and cost effectiveness in mind, our technology supports the automation of tasks in the HLA laboratory. When well-designed automation and robust software solutions are at work, laboratories can deliver test results with greater confidence and ease.

One Lambda's state of the art equipment provides optimal support for high and low through-put laboratories. The LABScan™ 100 and LABScan3D, based on Luminex® xMAP® technology, can rapidly process up to 96 samples. Bring automation to new a level with the LABXpress™ Pipettor—supports faster processing time, performance uniformity, and is optimal for high throughput testing.

Automated Pipettors/Dispensers

LABXpress™ Pipettor

The LABXpress Pipettor handles dispensing and mixing with precision and ease. Perfect for high throughput testing, LABXpress reduces turnaround time and enhances automation. With worry-free tracking and walk-away capability, it frees technicians for other essential tasks. LABXpress aspirates and dispenses precise volumes from test wells of a 96-well reaction plate and reagent vials. It features a barcode reader for sample tubes and reagent reservoirs allowing for easy tracking. Eight pipetting channels facilitate quick processing. With a short set-up time of 30 minutes to one hour, (depending on the assay), LABXpress can improve laboratory efficiency.

Product Description	Cat Id	Package
LABXpress Pipettor	LXPRP	each

For general laboratory use.

LinkSēq™ VIAFLO ASSIST Liquid Handler Kit

T he LinkSēq VIAFLO ASSIST Liquid handler is a personal pipetting assistant. LinkSēq VIAFLO ASSIST Liquid handler delivers simplicity to the laboratory.
Add product ordering table

Product Description	Cat Id	Package
LinkSēq VIAFLO ASSIST Liquid Handler Kit	AC-300	each

For general laboratory use.


λLABXpress

Readers/Analyzers

LABScan™ 100

LABScan 100 is a sensitive flow analyzer capable of rapidly processing up to 96 samples. When used with One Lambda's LABType™ and LABScreen™ family of products, this system allows the user to make assignments of HLA antibodies as well as HLA typing with the analysis support of HLA Fusion™ Software.

Note: The LABScan 100 flow analyzer is equivalent to the Luminex® 100 or 200 systems.

Product Description	Cat Id	Package
LABScan 100 System (Includes LX200, XY Platform, and Sheath Delivery System)	LABSCNXS3	each
LABScan 100 Calibration Kit	LX3CALKT	each
LABScan 100 Performance Verification Kit	LX3VERKT	each
Automated Maintenance Plate	LX3-AMP	each

LABScan3D™

Designed to provide breakthrough performance, higher throughput and increased multiplexing capabilities, the LABScan3D is the most advanced Luminex®-based flow analyzer available. When used with LABType XR and CWD products, exclusively designed for the LABScan3D, 500 beads can be simultaneously multiplexed in a single reaction, significantly increasing the pool size of screenable analytes. This advanced instrument is compatible with all LABType and LABScreen products.

Product Description	Cat Id	Package
LABScan 3D System (Includes internal, XY Platform and Sheath Delivery System)	LABSCNXS4	each
LABScan3D Calibration Kit	LX4CALKT	each
LABScan3D Performance Verification Kit	LX4VERKT	each
LABScan3D Utility Stand	LXPLX4SYS	each

Luminex Microspheres & Sheath Fluid

Product Description	Cat Id	Sale Unit
For use with xPONENT 4.2-LABScan 100		
Luminex Calibration Kit (Classification and Reporter)	LX3CALKT	Set
Performance Verification Kit (Classification, Reporter, and Fluidics)	LX3VERKT	Set
Accessory: Automated Maintenance Plate	LX3-AMP	Each
For use with xPONENT 4.2-LABScan3D		
LABScan3D Calibration Kit	LX4CALKT	Each
LABScan3D Verification Kit	LX4VERKT	Each
For use with Luminex Systems-LABScan 100 or LABScan		
Luminex Sheath Fluid - 20 liters	LXSF20	box
Luminex Sheath Fluid - 100 liters	LXSF20X5	5-20L boxes
Luminex Sheath Fluid Concentrate Pack (20x) – 1 Liter	LXSFC	box

For In Vitro Diagnostic Use.

Product Specifications	Calibration and Control Microspheres	Sheath Fluid
Storage Temperature:	2° to 8° C	Room Temp
Shipping Considerations:	Cold Pack	Room Temp
Packaging:	5ml per bottle	20 L bottle

QuantStudio™ 5

The QuantStudio 5 Real-Time PCR System is a high-performance benchtop instrument giving you greater control of your experiment data. Interact with the latest advancements in touch screen usability, access your data more easily than ever before and securely share your results with collaborators around the world.

Features and Benefits

- Multiplex with ease
- Connect to the cloud
- Precise temperature control
- Confidence in your records
- Protection of your work

Product Description	Cat Id	Package
QS 5 RT-PCR System,384-well, Laptop	QS5L	each
QS 5 RT-PCR System,384-well, Desktop	QS5D	each

QuantStudio™ 6

The QuantStudio 6 Flex Real-Time PCR System is ideal for laboratories with multiple applications or changing throughput needs. With an upgradable path to a QuantStudio 7 Flex System to accommodate automation or TaqMan Array cards, the QuantStudio 6 Flex System is the ideal qPCR platform if your needs change in the future.

Features and Benefits

- Flexibility that minimizes large up-front capital investment
- Skip the learning curve
- Performance you can trust.
- Upgrade capabilities when you need it.

Product Description	Cat Id	Package
QS 6 Flex RT-PCR System,384-well, Laptop	QS6FL	each
QS 6 Flex RT-PCR System,384-well, Desktop	QS6FD	each

For research use only. Not for use in diagnostic procedures.

QuantStudio™ Dx Real-Time PCR Instrument with 96-well fast block

The QuantStudio™ Dx Real-Time PCR Instrument is a real-time PCR platform that delivers the proven performance, flexibility, expandability, and support needed to meet the evolving needs of the clinical laboratory today and tomorrow. In Test Development Mode, the QuantStudio™ Dx Real-Time PCR Instrument offers easy-to-change blocks that can also accommodate array cards, as well as 96-well standard, 96-well Fast, and 384-well plates, allowing you to select the format that is right for your throughput needs.

Features and Benefits

- Results you can trust
- Flexibility you want, Security you need
- Efficient Workflows and Assays
- QuantStudio Dx Software

Product Description	Cat Id	Package
QuantStudio Dx RT-PCR 96w Fast Block	QSDXR-96FB	each

For In Vitro Diagnostic use.

Ion GeneStudio S5™ Sequencing Systems

The AllType HLA Sequencing assay together with the Ion GeneStudio S5 Sequencing System enables first pass, high- resolution genotyping of all the Class I and Class II loci of the Histocompatibility Leukocyte Antigen (HLA) genes.

The S5 platform uses cartridge-based consumables to enhance consistency and significantly shorten setup time. Sequencing data generated on the Ion GeneStudio S5 system is downloaded in real time onto the Torrent Server™ and automatically processed after each run using TypeStream Visual™ NGS Analysis Software. This process is optimized for speed and accuracy to deliver the highest level of performance from an NGS workflow to date. The S5 system is available in two configurations intended to meet the specific reporting requirements of your laboratory.

Ion GeneStudio S5™ System

- Sequencing in less than 5 hours
- Includes internal server for smaller footprint
- Can complete **one** sequencing run per day

Ion GeneStudio S5™ Plus System

- Sequencing in less than 5 hours
- Includes internal server for smaller footprint
- Can complete **three** sequencing runs per day

Features and Benefits

- Affordable entry into NGS
- Suitable for low to high volume laboratories
- HLA sequencing in less than 5 hours
- Complete up to 3 NGS sequencing runs per day (S5 Plus)

Ion Chef System

The Ion Chef System compliments the S5 by bringing walk-away convenience to template preparation with cartridge-based reagents and push-button simplicity. Clonal amplification, enrichment and loading of a single sequencing chip has never been so easy.

Features and Benefits

Automate Template Preparation

- Isothermal Amplification
- Enrichment
- Chip loading

Reduce labor

- Complete instrument set up in less than 10 minutes with cartridge-based reagents

Standardize results

- Eliminate variability with automation and on-board reagent tracking

Product Description	Cat Id	Package
Ion GeneStudio S5	IONGSS5	each
Ion GeneStudio S5 Plus	IONGSS5PL	each
Ion S5 System	IONS5	each
Ion S5 XL System	IONS5XL	each
Ion Chef System	IONCHEF	each

For research use only. Not for use in diagnostic procedures.

Software

HLA Fusion™ Software

HLA Fusion Software is a companion product to our HLA antibody detection and molecular typing products. HLA Fusion allows you to import raw data from our flow analyzers (LABScan 100 or LABScan3D), manually enter reactions, and read ELISA results for LAT products. Analysis results can be reviewed in graphical form and compared to One Lambda's quality control data, allowing easy adjustment of cut-off values to clarify results.

Users can also search for specific data and create standard or customized reports. Data can be exported in multiple formats. This software runs in both stand-alone and network environments.

HLA Fusion Software is for clinical diagnostics and features analysis modules for One Lambda's IVD products such as FlowPRA™, LABScreen, LABType, LCT™, LAT, Micro SSP™ and more.

Product Description	Cat Id	Package
HLA Fusion Software (IVD) For In Vitro Diagnostic Use.	FUSPGR	Software

HLA Fusion™ Research Software

The HLA Fusion Research Software for research sciences features modules for our RUO products such as KIR, Quantiplex, and more. HLA Fusion Research Software also now supports Non-HLA analysis for LABScreen Autoantibody.

Product Description	Cat Id	Package
HLA Fusion Research Software (RUO) For Research Use Only. Not for use in diagnostic procedures.	FUSREPGRX	Software

TypeStream Visual™ NGS Analysis Software

TypeStream Visual is a standalone NGS software solution that supports the analysis of both single read and paired-end sequencing data produced using AllType™ NGS assays.

Upon completion of sequencing, TypeStream Visual automatically aligns unmapped barcode sequences to the IMGT reference library to generate individual allele assignments. In addition to genotyping, TypeStream Visual provides the analyst with a wide range of analytical tools, run statistics and quality metrics to facilitate examination and reinforce decision making.

Results are seamlessly integrated with the HLA Fusion Research database, allowing you to combine high resolution typing data with antibody information for a more complete sample profile.

Features and Benefits

- Fully automated analysis
- No required network access
- Supports analysis of single read and paired-end sequencing

Flexible

- Compatible with multiple platforms

Automatic

- HLA typing initiates automatically to reduce time to results.

Concordant

- Genotyping and variant calling algorithms exceed 99.7% concordance

Integrated

- Data integration with HLA Fusion™ Research combines high resolution genotyping with:
  - Sample Records
  - Antibody Tracking
  - Combined Analysis
  - Reporting

Product Description	Cat Id	Package
TypeStream Visual NGS Analysis Software For Research Use Only in the USA and Canada. Not for use in diagnostic procedures. For In Vitro Diagnostics in the European Union only.	TSVPGR	Software

SureTyper™ Software

SureTyper is the software platform used with LinkSēq™ Real Time PCR products for automated and simplified genotype and phenotype reporting. With an easy to use interface, transparency of raw data, and flexible reporting options, SureTyper for simplified data interpretation and analysis.

Features and Benefits

The simple, fast, automated SureTyper software requires minimal training.

- No contamination control needed
- Less than 10 minutes of hands-on time per tray
- Genotyping results of Class I and II loci in 90 minutes
- Fewer repeats with less steps and reproducible results

Product Description	Cat Id	Package
SureTyper™ HLA*	STTPGRX	Software
SureTyper™ Blood **	STBPGRX	Software

*For In Vitro Diagnostic Use. (European Union Only)
For research use only in U.S. and Canada
**For research use only. Not for use in diagnostic procedures.

uTYPE™ HLA Sequence Analysis Software and uTYPE™ Dx HLA Sequence Analysis Software

uTYPE processes DNA sample data files of HLA Class I and Class II to determine allele assignment by comparison to the IMGT/HLA database. The sample data files are generated from samples processed with SeCore™ SBT Sequencing kits or SeCore GSSP SBT Sequencing kits and the Ap- plied Biosystems Genetic Analyzer 3500 or 3500DX.

The software combines rapid data analysis with effective results management. Interpret data from a single user interface and navigate easily through key positions. Use single-click editing without compromising your original data file. A unique filter function eliminates mismatched allele combinations from consideration, while customizable reports containing interpreted results are available for convenient review.

Features and Benefits

- Stacked forward and reverse sequence display for easy comparison of a position or region of interest
- Use of color-coded markers that allow for easy identification and navigation across sequencing positions requiring user interrogation
- Includes accessory functionality such as a Plate Record Generator, Sequence Alignment Tool, and Customizable Reports to enhance the user experience

Product Description	Cat Id	Package
uTYPE HLA Sequencing Analysis Software (CE-IVD) CE/IVD: For In Vitro Diagnostic Use. European Union Only	539992	Software
uTYPE Dx HLA Sequence Analysis Software (IVD) For In Vitro Diagnostic Use.	539993	Software

uTYPE™ HLA Sequence Analysis Software for Research

Product Description	Cat Id	Package
uTYPE HLA Sequencing Analysis Software (RUO) For Research Use Only. Not for use in diagnostic procedures.	539991	Software


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THE POWER INSIDE
XMAP
TECHNOLOGY

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