

CERTIFICATE

The certification body IFTA AG certifies

sifin diagnostics gmbh
Berliner Allee 317-321
13088 Berlin
Germany

the conformity of the introduced quality management system for the field of the development, manufacturing and sale of products for human and veterinary medical in-vitro-diagnostics as well as for the microbiological examination of water and food and other diagnostic applications with the standard

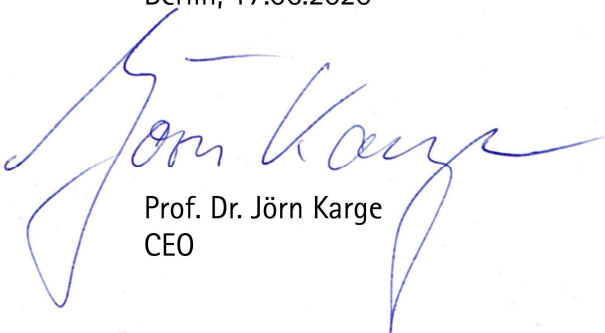
DIN EN ISO 9001:2015

Start of validity: 07.07.2020
End of validity: 06.07.2023

Report and certificate number: IC00016 038 20
The certificate consists of 1 page

This certificate includes an annual examination of the QMS by IFTA AG according to the specified standard.

Berlin, 17.06.2020



Prof. Dr. Jörn Karge
CEO



Certificate

mdc medical device certification GmbH
certifies that

sifin

sifin diagnostics gmbh
Berliner Allee 317-321
13088 Berlin
Germany

for the scope

**development, manufacturing and distribution of
in vitro diagnostic medical devices for the product groups:
blood grouping, bacteriological test reagents and culture media as well as
manufacturing of raw materials for manufacturing of
in vitro diagnostic medical devices**

has introduced and applies a

Quality Management System

The mdc audit has proven that this quality management system
meets all requirements of the following standard

EN ISO 13485

Medical devices – Quality management systems –
Requirements for regulatory purposes

EN ISO 13485:2016 + AC:2016 - ISO 13485:2016

Valid from	2021-10-23
Valid until	2024-10-22
Registration no.	D1058700050
Report no.	P21-00883-206453
Stuttgart	2021-07-23


Head of Certification Body



mdc medical device certification GmbH
Kriegerstraße 6
D-70191 Stuttgart, Germany
Phone: +49-(0)711-253597-0
Fax: +49-(0)711-253597-10
Internet: <http://www.mdc-ce.de>



EG-Konformitätserklärung
CE-Declaration de Conformité / EC-Declaration of Conformity
CE

Testreagenzien Anti-Salmonella H
Réactifs pour tests Anti-Salmonella H
Test Reagents Anti-Salmonella H

Wir / Nous / We

sifin diagnostics gmbh
Berliner Allee 317-321, 13088 Berlin, Germany
phone +49-30-700-144-0, fax +49-30-700-144-30, info@sifin.de, www.sifin.de

erklären in eigener Verantwortung, dass
déclarons sous notre propre responsabilité que / declare on our own responsibility that

die Medizinprodukte (IVD):
les dispositifs médical (IVD) :
the medical devices (IVD):

Testreagenzien Anti-Salmonella H
Réactifs pour tests Anti-Salmonella H
Test Reagents Anti-Salmonella H

TR1401	Anti-Salmonella H:a
TR1402	Anti-Salmonella H:b
TR1403	Anti-Salmonella H:c
TR1404	Anti-Salmonella H:d
TR1405	Anti-Salmonella H:E
TR1405-01	Anti-Salmonella H:E
TR1407	Anti-Salmonella H:f
TR1406	Anti-Salmonella H:g
TR1406-01	Anti-Salmonella H:g
TR1408	Anti-Salmonella H:g,m
TR1408-01	Anti-Salmonella H:g,m
TR1409	Anti-Salmonella H:h
TR1410	Anti-Salmonella H:i
TR1410-01	Anti-Salmonella H:i
TR1411	Anti-Salmonella H:k
TR1412	Anti-Salmonella H:L
TR1412-01	Anti-Salmonella H:L
TS1413	Anti-Salmonella H:m
TR1438	Anti-Salmonella H:n
TS1414	Anti-Salmonella H:p
TS1415	Anti-Salmonella H:q
TR1416	Anti-Salmonella H:r
TS1417	Anti-Salmonella H:s
TS1418	Anti-Salmonella H:t
TS1419	Anti-Salmonella H:u
TS1420	Anti-Salmonella H:v
TS1421	Anti-Salmonella H:w
TS1422	Anti-Salmonella H:x
TR1423	Anti-Salmonella H:y

EG-Konformitätserklärung CE-Declaration de Conformité / EC-Declaration of Conformity



Testreagenzien Anti-Salmonella H

Réactifs pour tests Anti-Salmonella H

Test Reagents Anti-Salmonella H

TR1424	Anti-Salmonella H:z
TS1425	Anti-Salmonella H:Z ₄ ,Z ₂₃
TS1426	Anti-Salmonella H:Z ₆
TR1427	Anti-Salmonella H:Z ₁₀
TS1428	Anti-Salmonella H:Z ₁₅
TR1440	Anti-Salmonella H:Z ₂₃
TS1429	Anti-Salmonella H:Z ₂₄
TS1449	Anti-Salmonella H:Z ₂₈
TS1430	Anti-Salmonella H:Z ₂₉
TS1431	Anti-Salmonella H:Z ₃₂
TR1445	Anti-Salmonella H:Z ₃₅
TR1447	Anti-Salmonella H:Z ₃₈
TR1448	Anti-Salmonella H:Z ₄₁
TR1437	Anti-Salmonella H:1
TR1437-01	Anti-Salmonella H:1
TR1433	Anti-Salmonella H:2
TR1433-01	Anti-Salmonella H:2
TS1434	Anti-Salmonella H:5
TR1435	Anti-Salmonella H:6
TS1436	Anti-Salmonella H:7

Sonstige Produkte

Autres dispositifs/Other devices

allen Anforderungen der Richtlinie 98/79/EG entsprechen.

remplissent toutes les exigences de la Directive 98/79/EG qui le concernait.

meet all the provisions of the Directive 98/79/EG which apply to it.

Angewandte harmonisierte Normen:	DIN EN ISO 13485:2016,
Normes nationales appliqués:	DIN EN 13612:2002,
Applied national standards:	DIN EN 13641:2002,
	DIN EN ISO 14971:2013,
	DIN EN ISO 15223-1:2017,
	DIN EN ISO 18113-1:2013,
	DIN EN ISO 18113-2:2013,
	DIN EN ISO 23640:2015

Konformitätsbewertungsverfahren:	Anhang III
Procédure d'évaluation de la conformité:	Annexe III
Conformity assessment procedure:	Annex III



EG-Konformitätserklärung
CE-Declaration de Conformité / EC-Declaration of Conformity
CE

Testreagenzien Anti-Salmonella H
Réactifs pour tests Anti-Salmonella H
Test Reagents Anti-Salmonella H

Gültig bis:
Valable jusqu'au:
Valid until:

2022-05-25

Berlin, 23.10.2021

Dr. Kathrin Landgrebe
Sicherheitsbeauftragte für Medizinprodukte
Agent de sécurité / Safety Officer



EG-Konformitätserklärung
CE-Declaration of Conformité / EC-Declaration of Conformity
CE

Testreagenzien Anti-Salmonella O, Vi
Réactifs de test Anti-Salmonella O, Vi
Test Reagents Anti-Salmonella O, Vi

Wir / Nous / We

sifin diagnostics gmbh
Berliner Allee 317-321, 13088 Berlin, Germany
phone +49-30-700-144-0, fax +49-30-700-144-30, info@sifin.de, www.sifin.de

erklären in eigener Verantwortung, dass
déclarons sous notre propre responsabilité que / declare on our own responsibility that

die Medizinprodukte (IVD):
les dispositifs médical (IVD) :
the medical devices (IVD):

Testreagenzien Anti-Salmonella O, Vi
Réactifs de test Anti-Salmonella O, Vi
Test Reagents Anti-Salmonella O, Vi

TR1201	Anti-Salmonella Group B
TR1201-01	Anti-Salmonella Group B
TR1202	Anti-Salmonella Group C
TR1203	Anti-Salmonella Group D
TR1203-01	Anti-Salmonella Group D
TR1204	Anti-Salmonella Group E
TR1301	Anti-Salmonella O:2
TR1302	Anti-Salmonella O:4
TR1302-01	Anti-Salmonella O:4
TR1303	Anti-Salmonella O:5
TR1303-01	Anti-Salmonella O:5
TR1304	Anti-Salmonella O:6 ₁
TR1305	Anti-Salmonella O:7
TR1306	Anti-Salmonella O:8
TR1307	Anti-Salmonella O:9
TR1307-01	Anti-Salmonella O:9
TR1308	Anti-Salmonella O:10
TR1323	Anti-Salmonella O:11
TR1325	Anti-Salmonella O:13
TR1309	Anti-Salmonella O:14
TR1310	Anti-Salmonella O:15
TR1328	Anti-Salmonella O:16
TR1329	Anti-Salmonella O:17
TS1330	Anti-Salmonella O:18
TR1311	Anti-Salmonella O:19
TR1312	Anti-Salmonella O:20
TR1331	Anti-Salmonella O:21

EG-Konformitätserklärung
CE-Declaration de Conformité / EC-Declaration of Conformity
CE

Testreagenzien Anti-Salmonella O, Vi
Réactifs de test Anti-Salmonella O, Vi
Test Reagents Anti-Salmonella O, Vi

TS1332	Anti-Salmonella O:22
TR1335	Anti-Salmonella O:25
TR1313	Anti-Salmonella O:27
TR1336	Anti-Salmonella O:28
TR1339	Anti-Salmonella O:30
TR1314	Anti-Salmonella O:34
TR1341	Anti-Salmonella O:35
TR1344	Anti-Salmonella O:38
TR1345	Anti-Salmonella O:39
TR1346	Anti-Salmonella O:40
TR1347	Anti-Salmonella O:41
TR1348	Anti-Salmonella O:42
TR1349	Anti-Salmonella O:43
TR1350	Anti-Salmonella O:44
TR1351	Anti-Salmonella O:45
TR1315	Anti-Salmonella O:46
TR1353	Anti-Salmonella O:47
TR1354	Anti-Salmonella O:48
TR1355	Anti-Salmonella O:50
TR1356	Anti-Salmonella O:51
TR1357	Anti-Salmonella O:52
TR1358	Anti-Salmonella O:53
TR1359	Anti-Salmonella O:54
TR1360	Anti-Salmonella O:55
TR1361	Anti-Salmonella O:56
TR1362	Anti-Salmonella O:57
TR1363	Anti-Salmonella O:58
TR1364	Anti-Salmonella O:59
TR1365	Anti-Salmonella O:60
TR1366	Anti-Salmonella O:61
TR1367	Anti-Salmonella O:62
TR1368	Anti-Salmonella O:63
TR1369	Anti-Salmonella O:65
TR1370	Anti-Salmonella O:66
TR1371	Anti-Salmonella O:67
TR1316	Anti-Salmonella Vi

Sonstige Produkte
Autres dispositifs/Other devices

allen Anforderungen der Richtlinie 98/79/EG entsprechen.
remplirent toutes les exigences de la Directive 98/79/EG qui le concernait.
meet all the provisions of the Directive 98/79/EG which apply to it.

EG-Konformitätserklärung
CE-Declaration de Conformité / EC-Declaration of Conformity
CE

Testreagenzien Anti-Salmonella O, Vi
Réactifs de test Anti-Salmonella O, Vi
Test Reagents Anti-Salmonella O, Vi

Angewandte harmonisierte Normen: DIN EN ISO 13485:2016,
Normes nationales appliqués: DIN EN 13612:2002,
Applied national standards: DIN EN 13641:2002,
DIN EN ISO 14971:2013,
DIN EN ISO 15223-1:2017,
DIN EN ISO 18113-1:2013,
DIN EN ISO 18113-2:2013,
DIN EN ISO 23640:2015

Konformitätsbewertungsverfahren: Anhang III
Procédure d'évaluation de la conformité: Annexe III
Conformity assessment procedure: Annex III

Gültig bis: 2022-05-25
Valable jusqu'au:
Valid until:

Berlin, 23.10.2021



Dr. Kathrin Landgrebe
Sicherheitsbeauftragte für Medizinprodukte
Agent de sécurité / Safety Officer



IQNet, the association of the world's first class certification bodies, is the largest provider of management System Certification in the world. IQNet is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.

CERTIFICATO n.
CERTIFICATE No.

4265/5/A

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITÀ DI
WE HEREBY CERTIFY THAT THE QUALITY MANAGEMENT SYSTEM OPERATED BY

MEUS S.r.l.

Unità Operative / Operative Units

Via Leonardo Da Vinci, 24B-26-28 - Zona Industriale Tognana - 35028 Piove di Sacco (PD) - Italia
Progettazione e produzione di kit diagnostici per l'analisi del sangue e dei liquidi biologici. Progettazione e produzione di terreni di coltura per microbiologia.

Progettazione e produzione di stampi per articoli in plastica per laboratorio analisi.

Via dell'Industria 2-16 - 35020 Arzergrande (PD) – Italia

Progettazione e produzione di aghi e dispositivi sterili per il prelievo ematico.

È CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD

UNI CEI EN ISO 13485:2016

Sistema di Gestione per la Qualità / Quality Management System

PER LE SEGUENTI ATTIVITÀ / FOR THE FOLLOWING ACTIVITIES

Progettazione e produzione di kit diagnostici per l'analisi del sangue e dei liquidi biologici. Progettazione e produzione di terreni di coltura per microbiologia.
Progettazione e produzione di aghi e dispositivi sterili per il prelievo ematico.
Progettazione e produzione di stampi per articoli in plastica per laboratorio analisi.

*Design and production of diagnostic kits for blood and biological liquids analysis.
Design and production of culture media for microbiology. Design and production of sterile needles and devices for collection of haematological samples. Design and production of moulds for plastic labware.*

Riferirsi alla documentazione del Sistema di Gestione per la Qualità aziendale per l'applicabilità dei requisiti della norma di riferimento.

Refer to the documentation of the Quality Management System for details of application to reference standard requirements.

Il presente certificato è soggetto al rispetto del documento ICIM "Regolamento per la certificazione dei sistemi di gestione" e al relativo Schema specifico.

The use and the validity of this certificate shall satisfy the requirements of the ICIM document "Rules for the certification of company management systems" and Specific Scheme.

Per informazioni puntuali e aggiornate circa eventuali variazioni intervenute nello stato della certificazione di cui al presente certificato,

si prega di contattare il n° telefonico +39 02 725341 o indirizzo e-mail info@icim.it.

For timely and updated information about any changes in the certification status referred to in this certificate,

please contact the number +39 02 725341 or email address info@icim.it.

DATA EMISSIONE
FIRST ISSUE
18/01/2007

EMISSIONE CORRENTE
CURRENT ISSUE
18/01/2022

DATA DI SCADENZA
EXPIRING DATE
17/01/2025

Vincenzo Delacqua

Rappresentante Direzione / Management Representative

ICIM S.p.A.

Piazza Don Enrico Mapelli, 75 – 20099 Sesto San Giovanni (MI)
www.icim.it



SGQ N° 004 A



www.cisq.com

CISQ è la Federazione Italiana di Organismi di Certificazione dei sistemi di gestione aziendali.
CISQ is the Italian Federation of management system Certification Bodies.



IQNet, the association of the world's first class certification bodies, is the largest provider of management System Certification in the world. IQNet is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.

CERTIFICATO n.
CERTIFICATE No.

4265/5/B

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITÀ DI
WE HEREBY CERTIFY THAT THE QUALITY MANAGEMENT SYSTEM OPERATED BY

ROLL S.r.l.

UNITÀ OPERATIVA / OPERATIVE UNIT

Via Leonardo Da Vinci, 24A - Zona Industriale Tognana - 35028 Piove di Sacco (PD)
Italia

È CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD

UNI CEI EN ISO 13485:2016

Sistema di Gestione per la Qualità / Quality Management System

PER LE SEGUENTI ATTIVITÀ / FOR THE FOLLOWING ACTIVITIES

Progettazione e produzione di Holders (camicie) per prelievo sottovuoto.
Progettazione e produzione di kit diagnostici per l'analisi del sangue e dei liquidi
biologici. Stampaggio di materie termoplastiche ad iniezione per articoli medicali.

*Design and production of Holders for vacuum sampling.
Design and production of diagnostic kits for blood and biological liquids
analysis. Injection moulding of thermoplastic materials for medical devices.*

Riferirsi alla documentazione del Sistema di Gestione per la Qualità aziendale per l'applicabilità dei requisiti della norma di riferimento.
Refer to the documentation of the Quality Management System for details of application to reference standard requirements.

Il presente certificato è soggetto al rispetto del documento ICIM "Regolamento per la certificazione dei sistemi di gestione" e al relativo Schema specifico.
The use and the validity of this certificate shall satisfy the requirements of the ICIM document "Rules for the certification of company management systems" and Specific Scheme.

Per informazioni puntuali e aggiornate circa eventuali variazioni intervenute nello stato della certificazione di cui al presente certificato,
si prega di contattare il n° telefonico +39 02 725341 o indirizzo e-mail info@icim.it.

*For timely and updated information about any changes in the certification status referred to in this certificate,
please contact the number +39 02 725341 or email address info@icim.it.*

DATA EMISSIONE
FIRST ISSUE
18/01/2007

EMISSIONE CORRENTE
CURRENT ISSUE
18/01/2022

DATA DI SCADENZA
EXPIRING DATE
17/01/2025

Vincenzo Delacqua
Rappresentante Direzione / Management Representative
ICIM S.p.A.

Piazza Don Enrico Mapelli, 75 - 20099 Sesto San Giovanni (MI)
www.icim.it



SGQ N° 004 A



www.cisq.com

CISQ è la Federazione Italiana di Organismi di
Certificazione dei sistemi di gestione aziendali.
CISQ is the Italian Federation of management
system Certification Bodies.

DICHIARAZIONE DI CONFORMITÀ CE
EC DECLARATION OF CONFORMITY

conforme all'Allegato III della Direttiva 98/79/CE "Dispositivi Medico-Diagnostici In Vitro" e s.m.i.
according to Annex III of the Directive 98/79/EC on "In Vitro Diagnostic Medical Devices" as amended

fabbricante **VACUTEST KIMA S.r.l. - articoli per laboratori analisi**
manufacturer **disposable labware**

indirizzo **Via dell'Industria, 12**
address **35020 Arzergrande (PD) - Italia**

telefono **+39-049-9720624**
phone

fax **+39-049-9720182**
fax

posta elettronica **info@vacutestkima.it**
e-mail

identificazione dei prodotti
product identification

**Sistema di prelievo di sangue e altri liquidi biologici
mediante provette con vuoto predeterminato in plastica
"VACUTEST KIMA".**

**"VACUTEST KIMA" vacuum blood and biological liquids
collection tubes in plastic.**

nome commerciale
brand name

"VACUTEST KIMA"

classificazione dei prodotti
product classification

**dispositivi diversi da quelli elencati nell'Allegato II della Direttiva 98/79/CE e s.m.i.
devices other than those mentioned in Annex II of the Directive 98/79/EC as amended**

Si dichiara

sotto la propria responsabilità che tutti i dispositivi sopraelencati rispettano le disposizioni applicabili della Direttiva 98/79/CE e s.m.i. "Dispositivi Medico-Diagnostici In Vitro".

Tutta la documentazione tecnica richiesta dall'Allegato III della succitata Direttiva e comprovante il rispetto dei Requisiti Essenziali di cui all'Allegato I della Direttiva, è conservata a cura del Fabbricante

Hereby we declare

under our sole responsibility that the above mentioned devices meet the applicable provisions of the Directive 98/79/EC as amended on "In Vitro Diagnostic Medical Devices".

All the supporting documents, as required by Annex III, in order to prove conformity to the Essential Requirements as listed in Annex I, are retained under the premises of the Manufacturer

luogo e data
place and date

Arzergrande, 01/01/2015

firma
signature

**Assicuratore Qualità / Quality Manager
Giovanni Chiarin**





IO Net, the association of the world's first class certification bodies, is the largest provider of management System Certification in the world. IO Net is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.

CERTIFICATO n. **4265/5/D**
CERTIFICATE No. _____

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITÀ DI
WE HEREBY CERTIFY THAT THE QUALITY MANAGEMENT SYSTEM OPERATED BY

VACUTEST KIMA S.r.l.

Sede / Head office

Via dell'Industria, 12 - 35020 Arzzergrande (PD) – Italia

Uffici direzionali e amministrativi

Unità Operative / Operative Units

Via dell'Industria, 12 - 35020 Arzzergrande (PD) – Italia

Progettazione e produzione di provette con vuoto predeterminato ad uso prelievo ematico, liquidi biologici e urine.
Produzione di provette per microprelievi di sangue. Commercializzazione di prodotti del Gruppo: kit diagnostici, terreni di coltura per microbiologia, articoli in plastica per laboratorio analisi, provette con vuoto predeterminato e aghi sterili.

Via Leonardo Da Vinci, 22 – 35028 Piove di Sacco (PD)

Uffici commerciali e magazzino.

È CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD

UNI CEI EN ISO 13485:2016

Sistema di Gestione per la Qualità / Quality Management System

PER LE SEGUENTI ATTIVITÀ / FOR THE FOLLOWING ACTIVITIES

Progettazione e produzione di provette con vuoto predeterminato ad uso prelievo ematico, liquidi biologici e urine. Produzione di provette per microprelievi di sangue. Commercializzazione di prodotti del Gruppo: kit diagnostici, terreni di coltura per microbiologia, articoli in plastica per laboratorio analisi, provette con vuoto predeterminato e aghi sterili.

Design and production of test tubes with predetermined vacuum for collection of haematological samples, biological liquids and urine samples. Production of test tubes for micro-collection of haematological samples. Trading of the products of the Group: diagnostic kits, culture media for microbiology, plastic disposable labware, test tubes with predetermined vacuum and sterile needles.

Riferirsi alla documentazione del Sistema di Gestione per la Qualità aziendale per l'applicabilità dei requisiti della norma di riferimento.

Refer to the documentation of the Quality Management System for details of application to reference standard requirements.

Il presente certificato è soggetto al rispetto del documento ICIM "Regolamento per la certificazione dei sistemi di gestione" e al relativo Schema specifico.
The use and the validity of this certificate shall satisfy the requirements of the ICIM document "Rules for the certification of company management systems" and Specific Scheme.

Per informazioni puntuali e aggiornate circa eventuali variazioni intervenute nello stato della certificazione di cui al presente certificato, si prega di contattare il n° telefonico +39 02 725341 o indirizzo e-mail info@icim.it.

For timely and updated information about any changes in the certification status referred to in this certificate, please contact the number +39 02 725341 or email address info@icim.it.

DATA EMISSIONE
FIRST ISSUE
18/01/2007

EMISSIONE CORRENTE
CURRENT ISSUE
18/01/2022

DATA DI SCADENZA
EXPIRING DATE
17/01/2025


Vincenzo Delacqua

Rappresentante Direzione / Management Representative

ICIM S.p.A.

Piazza Don Enrico Mapelli, 75 – 20099 Sesto San Giovanni (MI)

www.icim.it



SGQ N° 004 A



www.cisq.com

CISQ è la Federazione Italiana di Organismi di Certificazione dei sistemi di gestione aziendali.
CISQ is the Italian Federation of management system Certification Bodies.

CERTIFICATO N° 505DM07

CERTIFICATE N° 505DM07

Si certifica che il
this is to certify that

Sistema di Gestione per la Qualità

Quality Management System

messo in atto da
implemented by

APTACA S.p.A.

Via Monte Bianco, 4 – IT 20900 MONZA (MB)

nella Sede Operativa di
Operative Unit

Regione Monforte, 30 – IT 14053 CANELLI (AT)

è conforme alla norma
is in compliance with the standard

UNI CEI EN ISO 13485-2016 (ISO 13485-2016)

per i seguenti Processi
concerning the following kinds of Processes

Gestione della fabbricazione e immissione in commercio di tamponi sterili per il prelievo di campioni biologici in orifizi naturali e in ambito chirurgico.

Progettazione e fabbricazione di dispositivi medico diagnostici per laboratori di analisi.

Gestione della fabbricazione ed immissione in commercio di dispositivi medici invasivi in relazione agli orifizi del corpo in Classe I Sterile. Fabbricazione di dispositivi medici invasivi in relazione agli orifizi del corpo in Classe I Sterile. Commercializzazione di dispositivi medici e diagnostici in vitro.

Management of the manufacturing and placing on the market of sterile tampons for sampling of biological specimens in natural orifice and in surgical field. Design and manufacturing of diagnostic medical devices for laboratories of analysis. Management of the manufacturing and placing on the market of invasive medical devices with respect to body orifices (class I sterile). Manufacturing of invasive medical devices with respect to body orifices (class I sterile). Marketing of medical and diagnostic devices in vitro.

Il presente Certificato è soggetto al rispetto delle condizioni stabilite dai Regolamenti per la certificazione in vigore applicabili.
This Certificate shall satisfy the requirements established in the Rules for the certification in force applicable.

In caso di discordanza tra le lingue utilizzate nella traduzione del contenuto del presente certificato, fare riferimento alla lingua italiana
In cases of discrepancy between the languages used in the translation of the content of this certificate, please refer to the Italian language

L'AMMINISTRATORE DELEGATO
MANAGING DIRECTOR



Dr. Ing. Roberto Cusolito

Data di Prima Emissione
First Issue Date
2007-10-30

Data di Prima Emissione ITALCERT
First Issue Date ITALCERT
2011-10-30

Data di Rinnovo
Renewal Date
2020-10-30

Data di Scadenza
Expiration Date
2023-10-29



SGQ N° 023A

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

CERTIFICATO N° 505SGQ05

CERTIFICATE N° 505SGQ05

Si certifica che il
this is to certify that

Sistema di Gestione per la Qualità

Quality Management System

messo in atto da
implemented by

APTACA S.p.A.

Via Monte Bianco, 4 – IT 20900 MONZA (MB)

nella Sede Operativa di
Operative Unit

Regione Monforte, 30 – IT 14053 CANELLI (AT)

è conforme alla norma
is in compliance with the standard

UNI EN ISO 9001-2015 (ISO 9001-2015)

per i seguenti Processi
concerning the following kinds of Processes

Gestione della fabbricazione ed immissione in commercio di tamponi sterili per il prelievo di campioni biologici in orifizi naturali e in ambito chirurgico. Progettazione e fabbricazione di dispositivi medico diagnostici per laboratori di analisi. Gestione della fabbricazione ed immissione in commercio di dispositivi medici invasivi in relazione agli orifizi del corpo in Classe I Sterile. Fabbricazione di dispositivi medici invasivi in relazione agli orifizi del corpo in Classe I Sterile. Commercializzazione di dispositivi medici e diagnostici in vitro.


Commercializzazione di articoli da laboratorio

Management of the manufacturing and placing on the market of sterile tampons for sampling of biological specimens in natural orifice and in surgical field. Design and manufacturing of diagnostic medical devices for laboratories of analysis. Management of the manufacturing and placing on the market of invasive medical devices with respect to body orifices (class I sterile). Manufacturing of invasive medical devices with respect to body orifices (class I sterile). Marketing of medical and diagnostic devices in vitro. Marketing of laboratory articles.

Il presente Certificato è soggetto al rispetto delle condizioni stabilite dai Regolamenti per la certificazione in vigore applicabili.
This Certificate shall satisfy the requirements established in the Rules for the certification in force applicable.

In caso di discordanza tra le lingue utilizzate nella traduzione del contenuto del presente certificato, fare riferimento alla lingua italiana
In cases of discrepancy between the languages used in the translation of the content of this certificate, please refer to the Italian language.

L'AMMINISTRATORE DELEGATO
MANAGING DIRECTOR



Dr. Ing. Roberto Cusolito

Data di Prima Emissione
First Issue Date

1998-07-23

Data di Prima Emissione ITALCERT
First Issue Date ITALCERT

2011-10-30

Data di Rinnovo
Renewal Date

2020-10-30

Data di Scadenza
Expiration Date

2023-10-29

Settore IAF 14 - 29



SGQ N° 023A

Membero degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements



Ministero della Salute

DIREZIONE GENERALE DEI DISPOSITIVI MEDICI E
DEL SERVIZIO FARMACEUTICO

UFFICIO 4 DGDMF DISPOSITIVI MEDICO - DIAGNOSTICI IN VITRO

DGDMF/04/I.5.l.e.2/2020/4

VISTA la direttiva 98/79/CE relativa ai dispositivi medico-diagnostici in vitro;
VISTO il D.lgs. n. 332/2000 recante attuazione della direttiva 98/79/CE;
VISTA l'istanza datata 13/01/2020 presentata dalla ditta Aptaca Spa con sede in Via Monte Bianco, 4 - 24010 Monza (MB) C.F. 07520900155, P.IVA 00862050960;
CONSIDERATO che la ditta istante ha effettuato i versamenti richiesti dal D.M. 16 Gennaio 2019;
VISTI gli atti d'ufficio;

HAVING REGARD to 98/79/EC directive concerning the in vitro diagnostic medical devices;
HAVING REGARD to legislative Decree (D.lgs.)n. 332/2000 reporting the accomplishment of 98/79/EC Directive;
HAVING REGARD to the request dated 13/01/2020 submitted by the company Aptaca Spa located in Via Monte Bianco, 4 - 24010 Monza (MB) C.F. 07520900155, P.IVA 00862050960;

WHEREAS this company paid the fees required by Ministerial Decree (D.M.) January 16, 2019;
HAVING REGARD to the official deeds;

**SI ATTESTA
IT IS ATTESTED**

che la ditta Aptaca Spa con sede legale in Via Monte Bianco, 4 – 35020 Monza (MB), Italia, e sede operativa in Regione Monforte, 30 – 14053 - Canelli (Asti) Italia, C.F. 07520900155, P.IVA 00862050960 è il fabbricante ed ha marcato CE, come dispositivi medico - diagnostici in vitro, secondo le procedure previste dalla direttiva 98/79/CE, i seguenti prodotti:

that the Company Aptaca Spa with registered place of business in Via Monte Bianco, 4 - 24010 Monza (MB), Italy, and operative site in Regione Monforte, 30 – 14053 - Canelli (Asti), Italy, C.F.07520900155, P.IVA 008622050960 is the manufacturer and affixed CE marking as in vitro diagnostic medical devices, according to the Directive 98/79/EC, to the following products:

31 Petri dishes Ø 35 mm, with triple vents, in PS, sterile R
61 Petri dishes Ø 60 mm, without triple vents, in PS, sterile R
81 Petri dishes Ø 80 mm, without triple vents, in PS, sterile R
91 Petri dishes Ø 90 mm, with triple vents, in PS aseptic
101 Petri dishes Ø 90 mm, without triple vents, in PS aseptic
141 Petri dishes Ø 100 mm, in PS, without triple vents, aseptic
151 Petri dishes Ø 100 mm, in PS, with triple vents, aseptic

155 Contact petri dishes Ø 55 mm, with triple vents, PS, sterile
161 Petri dishes Ø 60 mm, with triple vents, in PS, sterile R
181 Petri dishes Ø 120 mm, without triple vents, in PS, aseptic
195 Contact petri dishes Ø90mm, with triple vents, PS, sterile R
221 Petri dishes Ø 140 mm, with triple vents, in PS, sterile R
231 Petri dishes Ø 150 mm, with triple vents, in PS, sterile R
251 Petri dishes Ø 90 mm, 2 sectors, triple vents, in PS, aseptic

261 Petri dishes Ø 90 mm, 3 sectors, triple vents, in PS, aseptic
271 Petri dishes Ø 90 mm, 4 sectors, triple vents, in PS, aseptic
500 Positive charge slides 26x76mm MasterGlass, writing area
560 Microscope slides 26x76 mm, cut type, thick 1,0/1.2mm MasterGlass
561 Microscope slides 26x76 mm, ground edges, thick 1,0/1.2 mm MasterGlass
562 Microscope slides 26x76 mm, ground edges with frosted end, thick 1,0/1.2 mm
571 Microscope coloured slides, frosted end white colour, 26x76 mm, MasterGlass
572 Microscope coloured slides, frosted end blue colour, 26x76 mm, MasterGlass
573 Microscope coloured slides, frosted end pink colour, 26x76 mm, MasterGlass
574 Microscope coloured slides, frosted end yellow colour, 26x76 mm, MasterGlass
575 Microscope coloured slides, frosted end green colour, 26x76 mm, MasterGlass
576 Microscope coloured slides, frosted end orange colour, 26x76 mm, MasterGlass
1003 1.5ml micro test tubes in PP, Eppendorf type, with cap
1005 10ml cylindrical test tubes in PS, without rim, graduated Ø16 x 100 mm.
1006 3ml cylindrical test tubes in PS, graduated, without rim, Ø12 x 55 mm
1011 18ml faeces containers in PS, with pressure cap and spoon, Ø22 x 63 mm
1012 18ml specimen containers, PS, pressure cap, Ø22x63mm
1013 18ml containers without cap, in PS, Ø22 x 63 mm
1014 4ml cylindrical test tubes for RIA, PS, graduated at 2ml, Ø12x70mm
1015 Cuvettes for spectrophotometer MACRO type, 2 - 4 ml, in PS, 10 x 10 x 45 mm
1016 Cuvettes for spectrophotometer SEMI-MICRO type 0.5-2ml, PS 10x4x45 mm
1018 5ml cylindrical test tubes in PS, with rim, graduated, Ø12 x 86 mm.
1022 Technicon sample cups 1.5 ml, in PS, Ø13.80 x 22.60 mm
1023 Technicon sample cups 4 ml, in PS, Ø17.26 x 37.90 mm
1024 Gemsac/Technicon sample cups vol. 0.5ml, in PS, Ø13,55x24,5mm
1025 5ml flat bottom test tubes in PS, graduated, with rim, Ø16 x 60 mm.
1027 Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour light blue
1028 Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour light blue
1029 Stoppers closed at the bottom in PE for test tubes Ø13 mm, light blue colour
1030 130ml urine containers in PS, with pressure cap, graduated, Ø60 x 73 mm
1031 12ml urine test tubes wide mouth, in PS, with cap, graduated, Ø17 x 105 mm
1034 Caps in PE for urine test tube wide mouth art. 1031/S colour light blue
1040 120ml urine containers in PP, with self-adhesive lid, not graduated, Ø73 x 66
1041 30ml containers in PS, with white pressure cap, Ø35 x 41 mm
1045 Cuvettes for spectrophotometer MACRO type 2 - 4 ml, in PMMA 10 x 10 x 45 mm
1046 Cuvettes spectrophotometer 0.5-2ml SEMI-MICRO type, PMMA, 10x4x45mm
1050 150ml urine containers in PS, with pressure cap, graduated, Ø60 x 73 mm
1051 60ml sputum containers, in PS, with pressure cap, Ø60 x 34 mm
1061 35ml containers in PS, with white pressure cap, Ø35 x 61 mm
1070 7ml containers "bijou" type, in PS, Ø20 x 50 mm, with white screw cap
1075 5ml cylindrical test tubes in PS, not graduated, without rim, Ø12 x 75 mm
1081 150ml urine containers in PS, with screw cap, graduated, Ø60 x 83 mm
1091 150ml urine containers in PS, with screw cap, graduated, Ø60x83 mm, sterile
1120 Square petri dishes 120x120 mm with triple vents, in PS, sterile R
1124 Cover for sample cups PE, anti-evaporation, neutral, for 1024/V - 1022
1124 Cover for sample cups in PE, anti-evaporation, neutral, for art. 1024/V - 1022

1126 Cover for sample cups in PE, push-on, neutral, for art. 1024/V - 1024 - 1022
1127 Stoppers with tongues in PE for test tubes Ø16 mm, colour light blue
1128 Stoppers with tongues in PE for test tubes Ø12 mm, colour light blue
1130 Stoppers with tongues in PE for test tubes Ø13 mm, colour light blue
1131 12ml special urine test tubes in PS, graduated, Ø17x105 mm, with cap
1134 Caps in PE for special urine test tubes 1131/S colour light blue
1147 Stoppers closed at the bottom with safety grip, PE, for test tubes Ø16mm,red
1148 Stoppers closed at the bottom with safety grip, PE, for test tubes Ø12mm,red
1164 2.5ml cylindrical test tubes in PS, not graduated, without rim, Ø11 x 64 mm
1168 1 ml cylindrical test tubes in PP, no graduated, without rim, Ø8 x 40 mm
1203 0.2ml micro test tubes in PP, with flat cap, Ø6 x 21 mm
1211 60ml faeces containers in PS, with pressure cap and spoon, Ø41 x 55 mm
1212 60ml specimen containers, in PS, with pressure cap, Ø41 x 55 mm
1213 60ml containers without cap, in PS, Ø41 x 55 mm
1221 20ml scintillation vials in PE with screw cap, Ø27x 61 mm
1230 200ml urine containers in PS, with screw cap, graduated, Ø64 x 85 mm
1250 Couter cups for cell counters 35ml, in PS, Ø31 x 55 mm, without cap
1303 2ml micro test tubes in PP, graduated, with cap
1304 0.5ml conical micro test tubes with screw cap and o-ring, in PP
1305 0.5ml conical micro test tubes with screw cap o-ring and base in PP
1312 Standard flat screw cap in PP for micro test tubes, without o-ring
1313 Screw caps with o-ring for micro test tubes
1314 0.5ml conical micro test tubes with screw cap, without o-ring in PP
1315 0.5ml conical micro test tubes with screw cap and base, PP, without o-ring
1318 Screw caps without o-ring for micro test tubes, PP, suitable for colored cap disk
1319 Screw caps with o-ring for micro test tubes, PP, suitable for colored cap disk
1375 5ml cylindrical test tubes in PS, not graduated, without rim, Ø13 x 75 mm
1405 1.5ml conical micro test tubes with screw cap and o-ring, in PP
1406 1.5ml conical micro test tubes with screw cap o-ring and base PP, not serigraphed
1415 1.5ml conical micro test tubes with screw cap, without o-ring in PP
1416 1.5ml conical micro test tubes with screw cap and base, in PP, without oring
1501 Pasteur pipettes 1ml in PE, lenght 150 mm, graduated
1502 Pasteur pipettes 3ml in PE, lenght 150 mm, graduated
1503 Capillary Pasteur pipettes, lenght 150 mm, in PE
1506 2ml conical micro test tubes with screw cap and o-ring in PP
1507 2ml conical micro test tubes with screw cap o-ring and base in PP
1511 Pasteur pipettes "fine tip", in polyethylene, total capacity 5 ml
1515 Narrow stem Pasteur pipette in PE, 4 ml, length 83 mm
1516 2ml conical micro test tubes with screw cap, without o-ring in PP
1517 2ml conical micro test tubes with screw cap and base in PP, without o-ring
1518 Paddle Pasteur pipette in PE, 0.8 ml, length 125 mm
1519 Paddle Pasteur pipette in PE, 1 ml, length 130 mm
1523 Pasteur pipettes 1.5 ml, lenght 230 mm, in PE, in dispenser boxes of 400pcs
1526 Gilford sample cups 0.5ml, in PP, Ø10 x 22 mm
1560 30 ml sputum containers in PP, with screw cap, neutral color, Ø57 x 34 mm
1601 Tips Eppendorf type in PP, vol. 50-1000ul, blue colour, 96pcs refill
1602 Tips Eppendorf type in PP, vol. 5-200 ul, yellow colour, 96pcs refill
1603 Tips Eppendorf type in PP, vol. 2-20 ul, neutral colour, 96pcs refill

1625 4 ml cylindrical test tubes flat bottom, in PS, graduated, with rim, Ø16x50 mm
1675 8ml cylindrical test tubes in PS, with rim, graduated, Ø16 x 75 mm.
1702 Tips Eppendorf type in PP, 0.5-10 ul cristal, neutral, 96pcs refill
1801 Tips Gilson type in PP, vol. 50-1000 ul, blue colour, 96pcs refill
1802 Tips Gilson type in PP, vol. 5-200 ul, yellow colour, 96pcs refill
1803 Tips Gilson type in PP, 2-200 ul graduated, neutral, 96pcs refill
1804 Tips Gilson type in PP, vol. 2-200 ul, yellow colour 96pcs refill
1850 Universal tips in PP, vol. 50-1000 ul, neutral colour, graduated, refill
1851 Universal tips in PP, vol. 50-1000 ul, blue colour, 96pcs refill
1852 Universal tips in PP, vol 2-200ul graduated, yellow, 96pcs refill
1902 Tips Gilson type in PP, vol. 0.1-10ul, neutral colour, 96pcs refill
1903 Tips Gilson type in PP, 0.1-10ul, lengthened, neutral, 96pcs refill
1951 Tips Biohit type in PP, vol. 2-300 ul, neutral colour, 96pcs refill
1954 Tips for micropipettes BIOHIT m-Line/Proline Plus type, PP, neutral, 0,1-10µl
1970 Tips Eppendorf type in PP, 20-300ul graduated, neutral, 96pcs refill
1975 Tips Oxford type in PP, vol. 5-200 ul, neutral colour, 96pcs refill
1980 Tips MLA type in PP, vol. 5-200 ul, neutral colour, 96pcs refill
2000 Test tubes in PP with K2 EDTA, for 2.5ml of blood, Ø12x56 mm, with light green cap
2001 Test tubes in PP with K2 EDTA, for 2.5ml of blood, Ø16x60 mm, with light green cap
2002 Test tubes in PP with K2 EDTA, for 5ml of blood, Ø16 x 60 mm, with light green cap
2003 Test tubes in PP with K2 EDTA, for 2.5ml of blood, Ø12x86 mm, with light green cap
2004 Test tubes in PP with K2 EDTA, for 5ml of blood, Ø12 x 86 mm, with light green cap
2005 Test tubes in PP with K2 EDTA, for 2.5ml of blood, Ø13x75 mm, with light green cap
2007 Test tubes in PP with K2 EDTA, for 10ml of blood, Ø16x100 mm, with light green cap
2008 Test tubes in PP with K2 EDTA, for 4ml of blood, Ø13x75 mm, with light green cap
2015 Blood grouping plates in PS, 10 wells, 160 x 40 x 6 mm
2018 Treated blood grouping plates, in PS, 12 wells.
2030 30ml specimen containers, in PP, with inserted screw cap Ø35 x 38 mm
2040 60ml specimen containers, in PS, with inserted screw cap Ø35 x 70 mm
2042 60ml faeces containers in PS, with screw cap and spoon, Ø35 x 70 mm
2050 60ml PP graduated specimen containers inserted screw cap Ø35 x 70 mm
2052 60ml faeces containers in PP, with screw cap and spoon, Ø35 x 70 mm
2062 60ml faeces containers in PP, with screw cap and spoon, Ø35 x 70 mm
2072 60ml faeces containers in PS, with screw cap and spoon, Ø 35x70 mm
2100 Test tubes in PP with K3 EDTA, for 2.5ml of blood, Ø12x56 mm, with dark green cap
2101 Test tubes in PP with K3 EDTA, for 2.5ml of blood, Ø16x60 mm, with dark green cap
2102 Test tubes in PP with K3 EDTA, for 5ml of blood, Ø16 x 60 mm, with dark green cap
2103 Test tubes in PP with K3 EDTA, for 2.5ml of blood, Ø12x86 mm, with dark green cap
2104 Test tubes in PP with K3 EDTA, for 5ml of blood, Ø12 x 86 mm, with dark green cap
2105 Test tubes in PP with K3 EDTA, for 2.5ml of blood, Ø13x75 mm, with dark green cap
2107 Test tubes in PP with K3 EDTA, for 10ml of blood, Ø16x100 mm, with green cap
2108 Test tubes in PP with K3 EDTA, for 4ml of blood, Ø13x75 mm, with dark green cap
2120 150ml urine containers in PP, with screw cap not inserted, graduated, Ø58 x 72 mm
2200 Test tubes with KF+NA2 EDTA, in PP, for 2.5 of blood, with orange cap, Ø12x56 mm
2201 Test tubes with KF+NA2 EDTA, in PP, for 2.5 of blood, with orange cap, Ø16x60 mm
2202 Test tubes with KF+NA2 EDTA, in PP, for 5 of blood, with orange cap, Ø16 x 60 mm

2203 Test tubes with KF+NA2 EDTA, in PP, for 2.5 of blood, with orange cap, Ø12x86 mm
2204 Test tubes with KF+NA2 EDTA, in PP, for 5 of blood, with orange cap, Ø12 x 86 mm
2205 Test tubes with KF+NA2 EDTA, in PP, for 2.5 of blood, with orange cap, Ø13x 75 mm
2207 Test tubes with KF+NA2 EDTA, in PP, for 10 of blood, with orange cap, Ø16x100 mm
2208 Test tubes with KF+NA2 EDTA, in PP, for 4 of blood, with orange cap, Ø13 x 75 mm
2220 200ml urine containers in PP, with screw cap, graduated, Ø64 x 93 mm
2250 Specimen containers in PP, 40 ml, with screw cap
2300 Test tubes with Sodium Heparin in PP, for 2.5 of blood, with violet cap, Ø12x56 mm
2301 Test tubes with Sodium Heparin in PP, for 2.5 of blood, with violet cap, Ø16x60 mm
2302 Test tubes with Sodium Heparin in PP, for 5 of blood, with violet cap, Ø16x60 mm
2303 Test tubes with Sodium Heparin in PP, for 2.5 of blood, with violet cap, Ø12x86 mm
2304 Test tubes with Sodium Heparin in PP, for 5 of blood, with violet cap, Ø12 x 86 mm
2305 Test tubes with Sodium Heparin in PP, for 2.5 of blood, with violet cap, Ø13x75 mm
2307 Test tubes with Sodium Heparin in PP, for 10 of blood, with violet cap, Ø16x100 mm
2308 Test tubes with Sodium Heparin in PP, for 4 of blood, with violet cap, Ø13 x 75 mm
2400 Test tube with Lithium Heparin in PP, for 2.5 of blood, with blue cap, Ø12 x 56 mm
2401 Test tube with Lithium Heparin in PP, for 2.5 of blood, with blue cap, Ø16 x 60 mm
2402 Test tube with Lithium Heparin in PP, for 5 of blood, with blue cap, Ø16 x 60 mm
2403 Test tube with Lithium Heparin in PP, for 2.5 of blood, with blue cap, Ø12 x 86 mm
2404 Test tube with Lithium Heparin in PP, for 5 of blood, with blue cap, Ø12 x 86 mm
2405 Test tube with Lithium Heparin in PP, for 2.5 of blood, with blue cap, Ø13 x 75 mm
2407 Test tube with Lithium Heparin in PP, for 10 of blood, with blue cap, Ø16 x 100 mm
2408 Test tube with Lithium Heparin in PP, for 4 of blood, with blue cap, Ø13 x 75 mm
2420 150ml urine containers in PP, with screw cap and plug, graduated, Ø58 x 72 mm
2440 60ml specimen containers, in PS, with inserted screw cap Ø38 x 65 mm
2442 60ml faeces containers in PS, with screw cap and spoon, Ø38 x 65 mm
2450 60ml specimen containers, in PP, with inserted screw cap Ø38 x 65 mm
2452 60ml faeces containers in PP, with screw cap and spoon, Ø38 x 65 mm
2500 Test tubes in PP with K3 EDTA, for 3ml of blood, Ø13 x 75 mm, with green cap
2501 Test tubes with 0.4ml Sodium Citrate for coagulation, in PP yellow cap, Ø16x60mm
2502 Test tubes with 0.4ml Sodium Citrate for coagulation, in PP yellow cap, Ø12x86 mm
2503 0.4ML SODIUM CITRATE YELLOW CAP IN 16X100 CYL. TEST TUBE
2505 0.4ML SODIUM CITRATE YELLOW CAP IN 12X56 FLAT BOTTOM TT.
2508 Test tubes with 0.4ml Sodium Citrate for coagulation, in PP yellow cap, Ø13x75 mm
2511 Test tubes with 0.5ml Sodium Citrate for coagulation, in PP yellow cap, Ø16x60 mm
2512 Test tubes with 0.5ml Sodium Citrate for coagulation, in PP yellow cap, Ø12x86 mm
2513 0.5ml Sodium Citrate in test tube in PP Ø16x100, yellow cap.
2520 Test tubes with 0.25ml Sodium Citrate for coagulation, PP yellow cap, Ø12x56mm
2521 Test tubes with 0.25ml Sodium Citrate for coagulation, PP yellow cap, Ø16x60mm
2522 Test tubes with 0.25ml Sodium Citrate for coagulation, PP yellow cap, Ø12x86 mm
2525 Test tubes with 0.25ml Sodium Citrate for coagulation, PP yellow cap, Ø13x75mm
2580 30ml specimen containers, in PS, with inserted screw cap Ø25 x 90 mm

2588 25ml faeces containers in PS, with screw cap and spoon, Ø25 x 90 mm
2600 Test tubes with 0.25ml Sodium Citrate for E.S.R., in PP pink cap, Ø12 x 56 mm
2601 Test tubes with 0.25ml Sodium Citrate for E.S.R., in PP pink cap, Ø16 x 60 mm
2602 Test tubes with 0.25ml Sodium Citrate for E.S.R., in PP pink cap, Ø12 x 86 mm
2603 0.25ML SODIUM CITRATE PINK/CAP IN 16X100 CYLINDRICAL TT.
2605 Test tubes with 0.25ml Sodium Citrate for E.S.R., in PP pink cap, Ø13 x 75 mm
2610 Test tubes with 0.4ml Sodium Citrate for E.S.R., in PP pink cap, Ø12 x 56 mm
2611 Test tubes with 0.4ml Sodium Citrate for E.S.R., in PP pink cap, Ø16 x 60 mm
2612 Test tubes with 0.4ml Sodium Citrate for E.S.R., in PP pink cap, Ø12 x 86 mm
2615 Test tubes with 0.4ml Sodium Citrate for E.S.R., in PP pink cap, Ø13 x 75 mm
2620 Test tubes with 0.5ml Sodium Citrate for E.S.R., in PP pink cap, Ø12 x 56 mm
2621 Test tubes with 0.5ml Sodium Citrate for E.S.R., in PP pink cap, Ø16 x 60 mm
2622 Test tubes with 0.5ml Sodium Citrate for E.S.R., in PP pink cap, Ø12 x 86 mm
2625 Test tubes with 0.5ml Sodium Citrate for E.S.R., in PP pink cap, Ø13 x 75 mm
2632 Test tubes Ø12x56mm PP with 0.25ml Sodium Citrate 1ml of blood, black rubber cap
2635 Test tubes Ø13x75mm PP with 0.4ml Sodium Citrate 1.6ml of blood, rubber cap
2640 60 ml containers Ø39x60mm, in PS, aluminium screw cap with gasket
2642 Test tubes Ø13x75mm in PP with 0.4ml Sodium Citrate for 1.6ml of blood
2680 25ml specimen containers, in PP, with inserted screw cap Ø25 x 90 mm
2688 25ml faeces containers in PP, with screw cap and spoon, Ø25 x 90 mm
2700 Test tube with 0.3ml of Sodium Citrate Ø13x75, light blue cap pierceable rubber
2705 0.35 ml Trisodium citrate test tubes with pressure blue
2710 Test tubes with 0.25ml Sodium Citrate, Ø12x56, 2 blood level x ESR & Coagulation,
2711 Test tubes with 0.25ml Sodium Citrate, Ø16x60, 2 blood level x ESR & Coagulation
2712 Test tubes with 0.25ml Sodium Citrate, Ø12x86, 2 blood level x ESR & Coagulation
2715 Test tubes with 0.25ml Sodium Citrate, Ø13x75, 2 blood level x ESR & Coagulation
3024 URINE-CONTROL ind. Cased 24h urine bottles in PE, 2,500ml, with cap, graduated
3731 URINE-CONTROL ind. Cased 24h urine tanks in PE, 2,500ml, with cap, graduated
4885 10ml test tube with separating granules+clot acc, in PS, Ø16x100mm, light blue cap
5003 0.75ml micro test tube in HDPE with cap, Ø 7.65 x 35.50 mm, colour neutral
5005 10ml cylindrical test tubes in PS, without rim, not graduated, Ø16 x 100 mm.
5006 3ml cylindrical test tubes in PS, not graduated, without rim, Ø11.5 x 55 mm
5015 Caps in PE 10x10 mm, for cuvettes spectrophotometer
5018 5ml cylindrical test tubes in PS, with rim, graduated, Ø12 x 86 mm.
5024 Sampling bottles 2,500ml, for 24h urine collection, PE, graduated, Ø130 x 250 mm
5060 60 ml urine containers in PP with screw cap with device for vacuum test tube
5112 3ml flat bottom test tubes in PS, graduated, with rim, Ø12 x 56 mm
5120 120ml urine containers in PP with screw cap with device for vacuum test tube
5122 External caps for vacuum test tubes Ø12-13 mm, in PE, colour neutral
5126 External caps for vacuum test tubes Ø15-16 mm, in PE, colour neutral
5127 Caps for reclosing vacuum test tubes Ø16 mm, in PE red colour
5129 Caps for reclosing vacuum test tubes Ø13 mm, in PE red colour

5140 20ml cylindrical test tubes in PS, not graduated, without rim, Ø16 x 150 mm.
5155 Rods for clot detachment and extraction in PS, length 157mm 1000 PCS/BAG
5250 25ml cylindrical test tubes in PS, graduated, with rim, Ø25 x 95 mm.
5300 Stirring rods in PS, Ø3 x 120 mm
5331 10ml conical urine test tubes for instruments, in PS, Ø16 x 105 mm, with cap
5420 Reduction cups for Ø13mm vacuum test tubes, 1ml, in PS, Ø13 x 30 mm
5430 Reduction cups for Ø16mm vacuum test tubes, 2ml, in PS, Ø16 x 30 mm
5434 Square containers 2,000ml for 24h urine collection, PE, graduated, neutral color
5471 Bottle 24h urine collection PE ergonomic 2000ml screw cap, device for vacuum
5472 Bottle 24h urine collection PE brown 2000ml, screw cap, device for vacuum
5520 Caogulometer sample cups for Dade/Sysmex CA50/500/5000 type PS, Ø10x30 mm
5555 10ml cylindrical test tubes in PMMA, not graduated, with rim, Ø16 x 100 mm,
5558 5ml cylindrical test tubes in PMMA, graduated, with rim, Ø12 x 86 mm
5575 5ml cylindrical test tubes in PMMA, graduated at 3ml, with rim, Ø13 x 75 mm
5630 Cuvettes in PMMA for CibaCorning Express 550 & Plus in rack of 13 segments
5640 Sample cups 1ml in PS for CibaCorning Express 550 & Plus 12,000 PCS/BOX
5650 Sample cups 0.8ml in PS for CibaCorning Express 550 & Plus for paediatrics use
5671 Bottle 24h urine collection PE 2000ml screw cap x vacuum test tube and probe
5672 Bottle brown 24h urine, PE, 2000ml screw cap x vacuum test tube and probe 15cm
5701 Disposable forceps in ABS, ergonomic grip, length 124mm
5710 Hitachi 902 cuvettes in bionex, 8 cuvettes rack
5720 Hitachi 911/912 cuvettes, in bionex, 20 cuvettes rack
5730 Hitachi 717 cuvettes, in PMMA, 20 cuvettes rack
5731 Bottle 24h urine collection PE brown 3000ml, screw cap, device for vacuum
5732 Bottle 24h urine collection PE 3000ml screw cap x vacuum test tube and probe
5821 Cuvettes for Olli-C Analyzer, 4ml, in PS, Ø12 x 50 mm
5830 Technicon sample cups 1.5 ml, in PS, Ø13.90 x 24.70 mm
5840 ABBOT Architect sample cups, in PS, Ø19.8 x 49 mm
5860 AxSYM sample cups, in PS, Ø17.50 x 53 mm
5870 Kodak sample cups 0.5ml in PS, Ø16 x 20 mm
5880 STAGO® Start® coagulation analyzer sample cups, in PS, box of 40 pieces
5890 Sigma® Amelung® KC4 DELTA coagulation analyzer cuvettes, bags of 1000 pieces
5901 Hitachi sample cups 3ml in PS, Ø17 x 38 mm
5903 Hitachi sample cups, for pediatric use, Ø17 x 37 mm
5907 Olympus® AU400/AU640 sample cups, PS, 4.5ml, Ø 13.7x 49 mm
5920 Cuvettes for Sherwood/Elvi, 1ml, in PS, Ø12 x 27 mm 10,000 PCS/BOX
5921 Cuvettes for Elvi 818-819-820, 1 ml, in PS, Ø12 x 34.50 mm
5930 Cuvettes for Fibrintimer, 1.3ml, in PS, Ø11.9x34.5 mm, with metallic mixers
5931 Coagulation cup PP for Option, Behnk Thrombotimer Ø8.6x22.4, metallic mixers
5941 Cuvettes for Amelung 1.5 ml, in PS, Ø20x23mm, without mixer 10,000 PCS/BOX
5951 Cuvette for coagulometer TECO® -DiaMed®-DIALAB® type, PS, n°1 cell
5961 Cuvette for coagulometer TECO® -DiaMed®-DIALAB® type, in PS, n°2 cells
5971 Cuvettes for ACCU CoaDATA® coagulometer, in PS, with metallic steal stick
5984 Cuvettes for SEAC CLOT S2 coagulometer, in PS, with metallic steal stick
5990 Separating granules in PS, in packages of 1 Kg
6005 10ml cylindrical test tubes in PS, with rim, graduated, Ø16 x 100 mm.
6013 7ml cylindrical test tubes in PS, without rim, not graduated Ø13x100mm

6301 2ml cryotubes in PP internal thread, not serigraphed, screw cap aside
6302 1.2ml cryotubes in PP, internal thread, serigraphed, Ø12.50 x 43 mm, sterile
6311 2ml cryotubes in PP, internal thread, serigraphed, Ø12.50 x 49 mm, sterile
6321 4ml cryotubes in PP, internal thread, serigraphed, Ø12.50 x 75 mm, sterile
6331 5ml cryotubes in PP, skirted, internal thread, serigraphed, Ø12.50x90 mm, sterile
6402 1.2ml cryotubes in PP, external thread, serigraphed, Ø12.50 x 43 mm, sterile
6405 3ml cryotubes in PP, external thread, serigraphed, Ø12.50 x 70 mm, sterile
6411 2ml cryotubes in PP, external thread, serigraphed, Ø12.50 x 49 mm, sterile
6421 4ml cryotubes in PP, external thread, serigraphed, Ø12.50 x 75 mm, sterile
6431 5ml cryotubes in PP, external thread, serigraphed, Ø12.50 x 90 mm, sterile
6840 Test tubes rack hermetic lid for n°40 tubes Ø12-16 mm, conform to ADR/RID rules
6910 Light blue colored disks in PP to identify cryotube
9402 Tips Biohit m-LINE/PROLINE type, with filter, 0.1-10ul, neutral, sterile rack 96 pcs
9501 Filter tips Eppendorf type, vol. 101-1000 ul, neutral, sterile in rack of 96pcs
9502 Filter tips Eppendorf type, vol. 5-100 ul, neutral, sterile in rack of 96pcs
9503 Filter tips Eppendorf type, vol. 0.5-10 ul, neutral, sterile in rack of 96pcs
9504 Filter tips Eppendorf type, vol. 2-20 ul, neutral colour, sterile in rack of 96pcs
9601 Filter tips Gilson type, 2-160ul beveled grad, neutral, sterile in rack of 96pcs
9603 Filter tips Gilson type, 2-100ul beveled grad, neutral, sterile in rack of 96pcs
9605 Filter tips Gilson type, 2-30ul beveled gradu, neutral, sterile in rack of 96pcs
9606 Filter tips Gilson type, vol. 2-200ul beveled, neutral, sterile in rack of 96pcs
9610 Filter tips Gilson type, vol. 0.1-10 ul, neutral, sterile in rack of 96pcs
9615 Filter tips Gilson type, vol. 101-1000 ul, neutral, sterile in rack da 96pz
9620 Filter tips Eppendorf type, 20-300 ul graduated, neutral, sterile in rack of 96pcs
9701 Filter tips Universal type, vol. 100-1000 ul, neutral, sterile in rack of 96pcs
9702 Tips for gel loading in PP, vol. 0.1-200 ul, neutral, sterile in rack of 96pcs
9703 Filter tips Universal type, vol. 50-1000 ul, graduated, neutral, sterile rack of 96pcs
9710 Filter tips Gilson type, vol. 0.1-10 ul, neutral, sterile in rack of 96pcs
9711 Filter tips Universal type, vol. 2-200 ul, neutral, sterile in rack of 96pcs
9712 Filter tips universal type in PP, vol. 2-30 ul, neutral, sterile in rack of 96 pcs
9713 Filter tips universal type in PP, vol. 2-100 ul, neutral, sterile in rack of 96 pcs
9801 Macro tips Gilson type with filter vol. 1000-5000 ul, blue sterile in rack of 50 pieces
9802 Macro tips Eppendorf type with filter vol. 1000-5000 ul, neutral
9803 Macro tips Finnpiquette type with filter, vol. 1000-5000ul, neutral, sterile
9810 Macro tips Gilson type with filter, vol. 2000-10000 ul, neutral, sterile in rack 25pcs
9811 Macro tips Biohit type with filter, vol. 2000-10000 ul, neutral, sterile in rack 25pcs
10001 Macro tips Gilson type, vol. 2,000-10,000ul, neutral, packing 100pcs
10005 Macro tips Biohit type, vol. 2,000-10,000ul, neutral, packing 100pcs
10061 TPX cylindrical test tubes, 7 ml, with rim, not graduated, Ø12 x 100 mm
10062 TPX cylindrical test tubes, 10 ml, with rim, not graduated Ø16 x 100 mm
10063 TPX cylindrical test tubes, 16 ml, with rim, not graduated Ø18 x 100 mm
10064 TPX cylindrical test tubes, 30 ml, with rim, not graduated Ø24 x 90 mm

10065 TPX cylindrical test tubes, 22 ml, with rim, not graduated Ø20 x 100 mm
10066 TPX cylindrical test tubes, 31 ml, with rim, not graduated Ø24 x 95 mm
10067 TPX cylindrical test tubes, 55 ml, with rim, not graduated Ø30 x 100 mm
10068 TPX cylindrical test tubes, 75 ml, with rim, not graduated Ø35 x 100 mm
10069 TPX cylindrical test tubes, 110ml, with rim, not graduated Ø40 x 120 mm
10070 TPX cylindrical test tubes, 140ml, with rim, not graduated Ø45 x 120 mm
10071 TPX cylindrical test tubes, 180ml, with rim, not graduated Ø50 x 120 mm
10110 SEDI-RATE E.S.R. System Graduated pipette + test tube with 0.2ml of Na Citrate
10121 PP cylindrical test tubes, 7 ml, with rim, not graduated, Ø12 x 100 mm
10122 PP cylindrical test tubes, 10 ml, with rim, not graduated Ø16 x 100 mm
10123 PP cylindrical test tubes, 16 ml, with rim, not graduated Ø18 x 100 mm
10124 PP cylindrical test tubes, 30 ml, with rim, not graduated Ø24 x 90 mm
10125 PP cylindrical test tubes, 22 ml, with rim, not graduated Ø20 x 100 mm
10126 PP cylindrical test tubes, 31 ml, with rim, not graduated Ø24 x 95 mm
10127 PP cylindrical test tubes, 55 ml, with rim, not graduated Ø30 x 100 mm
10128 PP cylindrical test tubes, 75 ml, with rim, not graduated Ø35 x 100 mm
10129 PP cylindrical test tubes, 110ml, with rim, not graduated Ø40 x 120 mm
10130 PP cylindrical test tubes, 140ml, with rim, not graduated Ø45 x 120 mm
10131 PP cylindrical test tubes, 180ml, with rim, not graduated Ø50 x 120 mm
10150 10ml test tubes with screw cap, self-standing base, PP, graduated, Ø16x100mm.
10160 5ml test tubes with screw cap and self-standing base, PP, graduated, Ø16x60mm.
10170 5 ml cylindrical test tubes PP, with blue screw cap, not graduated, Ø12 x 75 mm
10180 10ml test tubes PP with self-standing base, assembled screw cap, Ø16x100 mm
10181 PS cylindrical test tubes, 7 ml, with rim, not graduated, Ø12 x 100 mm
10182 PS cylindrical test tubes, 10 ml, with rim, not graduated Ø16 x 100 mm
10183 PS cylindrical test tubes, 16 ml, with rim, not graduated Ø18 x 100 mm
10184 PS cylindrical test tubes, 30 ml, with rim, not graduated Ø24 x 90 mm
10185 PS cylindrical test tubes, 22 ml, with rim, not graduated Ø20 x 100 mm
10186 PS cylindrical test tubes, 31 ml, with rim, not graduated Ø24 x 95 mm
10187 PS cylindrical test tubes, 55 ml, with rim, not graduated Ø30 x 100 mm
10188 PS cylindrical test tubes, 75 ml, with rim, not graduated Ø35 x 100 mm
10189 PS cylindrical test tubes, 110ml, with rim, not graduated Ø40 x 120 mm
10190 PS cylindrical test tubes, 140ml, with rim, not graduated Ø45 x 120 mm
10191 PS cylindrical test tubes, 180ml, with rim, not graduated Ø50 x 120 mm
10200 5 ml false bottom test tubes in PP, Ø 16x75 mm, bags of 500 pcs
10205 5ml cylindrical test tubes in PP, with hinged-lid, Ø13x52mm, graduated
10206 10ml cylindrical test tubes in PP, with hinged-lid, Ø16x80mm, graduated
10241 TPX conical test tubes, 10 ml, with rim, not graduated Ø16 x 108 mm
10242 TPX conical test tubes, 16 ml, with rim, not graduated Ø18 x 120 mm
10251 3ml cylindrical test tubes in Polyethylene, graduated, with rim, Ø12 x 55 mm.
10252 5ml cylindrical test tubes in Polyethylene, graduated, with rim, Ø12 x 86 mm.

10271 PP conical test tubes, 10 ml, with rim, not graduated Ø16 x 108 mm
10272 PP conical test tubes, 16 ml, with rim, not graduated Ø18 x 120 mm
10300 Screw cap for false bottom tubes 10200, bags of 1000 pcs
10351 50ml conical test tubes in PP, with light blue screw cap, graduated, Ø30x115mm.
10352 15ml conical test tubes in PP, with screw cap, graduated, Ø17 x 120 mm.
10361 10ml cylindrical test tubes in PS, with screw cap, Ø16x100 mm.
10362 15ml cylindrical test tubes in PS, with screw cap, Ø16 x 120 mm.
10363 20ml cylindrical test tubes in PS, with screw cap, Ø16 x 150 mm.
10401 Caps in PE colour neutral, for test tubes Ø12 mm
10402 Caps in PE colour neutral, for test tubes Ø16 mm
10403 CAPS FOR T. TUBES DIAM. 14.5 MM. FOR TUBES DIAM. 16 MM.
10404 Caps in PE colour neutral, for test tubes Ø18 mm
10405 Caps in PE colour neutral, for test tubes Ø24 mm
10406 Caps in PE colour neutral, for test tubes Ø30 mm
10407 Caps in PE colour neutral, for test tubes Ø35 mm
10408 Caps in PE colour neutral, for test tubes Ø40 mm
10409 Caps in PE colour neutral, for test tubes Ø45 mm
10410 Caps in PE colour neutral, for test tubes Ø50 mm
10411 Caps in PE colour neutral, for test tubes Ø20 mm
10621 Securbox for transport of biological samples, rack of 10 holes, 2.000ml, in PP
10622 Securbox for transport of biological samples, rack of 99
10631 5ml containers in PE, with screw cap, Ø21 x 30 mm
10632 30ml containers in PE, with screw cap, Ø35 x 53 mm
10633 90ml containers in PE, with screw cap, Ø55 x 62 mm
10720 Round bowls with rim, in PP, 10 liter, Ø350 x 160 mm
10733 Safety box in PC, with lid with o-ring, foam insert x 54 test tubes & 4 containers
10831 Laboratory spatulas, in high impact PS, lenght 150 mm, spatula-spatula type
10832 Laboratory spatulas, in high impact PS, lenght 180 mm, spatula-spatula type
10833 Laboratory spatulas, in high impact PS, lenght 180 mm, spatula-spoon type
10834 Laboratory spatulas, in high impact PS, lenght 210 mm, spatula-spoon type
11452 15ml conical test tubes PS, screw cap yellow colour, graduated, Ø17x120mm.
11581 Centrifuge conical test tubes in PS da 13.5ml, Ø16x110 mm, with white screw cap
11681 Centrifuge conical test tubes in PP da 13.5ml, Ø16x110 mm, with screw cap
12731 Sampling tanks 2,500ml, for 24h urine collection, PE, graduated, 245x115x160 mm
13501 Microscope slides 26x76 mm, cut type, thick 0.9/1.0 mm
13502 Microscope slides 26x76 mm, ground edges, thick 0.9/1.0 mm
13503 Microscope slides 26x76 mm, frosted end, thick 0.9/1.0 mm
13504 Microscope slides 26x76 mm, ground edges frosted end, thickness 0.9/1.0 mm
13551 Microscope coloured slides, frosted end white colour, 26x76 mm
13552 Microscope coloured slides, frosted end blue colour, 26x76mm, thick 0.95/1.05 mm
13553 Microscope coloured slides, frosted end pink colour, 26x76mm, thick 0.95/1.05 mm
13554 Microscope coloured slides, frosted end yellow colour, 26x76mm, 0.95/1.05 mm
13555 Microscope coloured slides, frosted end green colour, 26x76mm
13556 Microscope coloured slides, frosted end orange, 26x76mm, thick 0.95/1.05 mm
13561 Microscope slides with n° 1 cavity, 25x75mm, ground edges, safety corners
13562 Microscope slides with n° 2 cavity, 25x75mm, ground edges, safety corners
13570 Positive charge slides 26x76mm with white writing area
13580 Sinalized coated slides 26x76 mm, with white writing area
14005 Embedding cassettes, in acetal resin, white colour, square grid
14006 Embedding cassettes, in acetal resin, yellow colour square grid

14007 Embedding cassettes, in acetal resin, green colour, square grid
14008 Embedding cassettes, in acetal resin, pink colour, square grid
14009 Embedding cassettes, in acetal resin, light blue, square grid
14010 Embedding cassettes in acetal resin (POM), orange, square grid
14100 Protective biopsy pads, 26x30 mm, in polyester foam, with controlled porosity
14105 Biopsy cassettes, in acetal resin, white colour, square grid
14106 Biopsy cassettes, in acetal resin, yellow colour square grid
14107 Biopsy cassettes, in acetal resin, green colour, square grid
14108 Biopsy cassettes, in acetal resin, pink colour, square grid
14109 Biopsy cassettes, in acetal resin, light blue, square grid
14115 Embedding rings in ABS, in white colour
14116 Embedding rings in ABS, in yellow colour
14117 Embedding rings in ABS, in green colour
14118 Embedding rings in ABS, in pink colour
14119 Embedding rings in ABS, in light blue colour
14120 20ml surgical containers in PP yellow screw cap, graduated, Ø44 x 40 mm
14121 40ml surgical containers in PP yellow screw cap, graduated, Ø44 x 39 mm
14122 60ml surgical containers in PP yellow screw cap, graduated, Ø44 x 58 mm
14123 90ml surgical containers in PP yellow screw cap, graduated, Ø44 x 73 mm
14124 120 ml surgical containers in PP, yellow screw cap graduated Ø52 x 77 mm
14125 Mega embedding cassettes with rectangular grid, white
14126 Mega embedding cassettes, in acetal resin, yellow colour rectangular grid
14127 Mega embedding cassettes, in acetal resin, green colour, rectangular grid
14128 Mega embedding cassettes, in acetal resin, pink colour, rectangular grid
14129 Mega embedding cassettes, in acetal resin, light blue, rectangular grid
14131 30 ml containers for biopsy in PS, with pressure cap in PE, Ø34 x 41 mm
14132 50 ml containers for biopsy in PS, with pressure cap in PE, Ø39 x 52 mm
14134 100ml containers for biopsy in PS, with pressure cap in PE, Ø51 x 60 mm
14135 Super mega cassettes, in acetal resin, white colour
14136 150ml containers for biopsy in PS, with pressure cap in PE, Ø65 x 50 mm
14138 200ml containers for biopsy in PS, with pressure cap in PE, Ø65 x 67 mm
14140 250ml containers for biopsy in PS, with pressure cap in PE, Ø65 x 85 mm
14142 Surgical specimen containers, in PP, with pressure cap, 500ml, Ø120x80 mm
14143 Surgical specimen containers, in PP, with pressure cap, 1.000ml, Ø120x115 mm
14144 Surgical specimen containers, in PP, with pressure cap, 1.500ml, Ø120x150 mm
14149 160 ml surgical containers in PP, yellow screw cap graduated Ø90 x 56 mm
14150 Transparent containers in PP, for surgical specimens, 150ml, Ø 69 x 67 mm
14151 250 ml surgical containers in PP, yellow screw cap graduated Ø90 x 56 mm
14152 500 ml surgical containers in PP, yellow screw cap graduated Ø90 x 109 mm
14153 1000ml surgical containers in PP, yellow screw cap graduated Ø113 x 138 mm
14155 Transparent containers in PP, for surgical specimens, 250ml, Ø 95 x 61,5 mm
14160 Transparent containers in PP, for surgical specimens, 500ml, Ø 117,8 x 79,15 mm
14161 Cylindrical jars with cap, 70 ml, in HDPE, inner cap
14162 Cylindrical jars with cap, 120 ml, in HDPE, inner cap
14163 Cylindrical jars with cap, 250 ml, in HDPE, inner cap
14164 Cylindrical jars with cap, 500 ml, in HDPE, inner cap
14165 Cylindrical jars with cap, 1,000 ml, in HDPE, inner cap
14166 Cylindrical jars with cap, 2,000 ml, in HDPE, inner cap
14167 Cylindrical jars with cap, 750 ml, in HDPE, inner cap
14168 Cylindrical jars with cap, 1500 ml, in HDPE, inner cap
14170 Transparent containers in PP, for surgical specimens, 1000ml Ø 132,3 x 129,4 mm

14175 Transparent containers PP, for surgical specimens, 2000ml Ø170x154 mm, handle
14180 Transparent containers PP, surgical specimens, 3000ml Ø199x132,3mm, handle
14185 Transparent containers PP, surgical specimens, 5000ml Ø227x181,1mm, handle
14190 Big containers PP, surgical specimens, 5,500ml, 265x190x142,8 mm, with handle
14192 Big containers PP, surgical specimens, 2,500 ml, 199x140x132 mm, without handle
14195 Big containers PP, surgical specimens, 11,000ml, 277x242x223,5 mm, with handle
14205 Embedding cassettes, in acetal resin, white colour, rectangular grid
14206 Embedding cassettes, in acetal resin, yellow colour rectangular grid
14207 Embedding cassettes, in acetal resin, green colour, rectangular grid
14208 Embedding cassettes, in acetal resin, pink colour, rectangular grid
14209 Embedding cassettes, in acetal resin, light blue, rectangular grid
14215 Embedding cassettes without lid, white color, in POM 28 x 40 x 6 mm
14216 Embedding cassettes without lid, yellow color, in POM 28 x 40 x 6 mm
14217 Embedding cassettes without lid, green color, in POM 28 x 40 x 6 mm
14218 Embedding cassettes without lid, pink color, in POM 28 x 40 x 6 mm
14220 Stainless steel lids for standard embedding cassettes, 28 x 40 mm
14245 Stackable embedding cassettes, POM, white colour
14246 Stackable embedding cassettes, POM, yellow colour
14247 Stackable embedding cassettes, POM, green colour
14248 Stackable embedding cassettes, POM, pink colour
14249 Stackable embedding cassettes, POM, light blue colour
14265 Embedding cassettes with 4 compartments, white colour, rectangular grid
14266 Embedding cassettes with 4 compartments, yellow colour, rectangular grid
14267 Embedding cassettes with 4 compartments, green colour, rectangular grid
14268 Embedding cassettes with 4 compartments, pink colour, rectangular grid
14269 Embedding cassettes with 4 compartments, blue colour, rectangular grid
14301 Stainless steel base mould, 7 x 7 x 6 mm
14302 Stainless steel base mould, 15 x 15 x 6 mm
14303 Stainless steel base mould, 24 x 24 x 6 mm
14304 Stainless steel base mould, 30 x 24 x 6 mm
14305 Stainless steel base mould, 37 x 24 x 6 mm
14306 Stainless steel base mould, for mega cassettes
14307 Stainless steel base mould, for super mega cassettes
14401 Disposable base mould in PVC, 7 x 7 x 6 mm DIM. 7x7x6 MM
14402 Disposable base mould in PVC, 15 x 15 x 6 mm DIM. 15x15x6 MM
14403 Disposable base mould in PVC, 24 x 24 x 6 mm DIM. 24x24x6 MM
14404 Disposable base mould in PVC, 30 x 24 x 6 mm DIM. 30x24x6 MM
14405 Disposable base mould in PVC, 37 x 24 x 6 mm DIM. 37x24x6 MM
14406 Disposable base mould in PVC, for mega cassettes
14407 Disposable base mould in PVC, for super mega cassettes
14501 Biopsy bags for histological processing, in polyester, 30x40 mm
14502 Biopsy bags for histological processing, in polyester, 45x60 mm
14503 Biopsy bags for histological processing, in polyester, 75x95 mm
15101 Slides for urine sedimentation in PMMA
15102 Kit with 100 slides for urinary sediments (10 cells) + 1000 special pasteur pipettes
15103 Slides urinary sediments kit + Pasteur pipette + staining solution
15104 Sternheimer & Malbin staining solution for urinary sediment. 35ml dropping bottle
15361 10ml cylindrical test tubes in PS, screen-printed graduation, with screw cap

15362 15ml cylindrical test tubes in PS, screen-printed graduation, with screw cap
18100 Cuvette 12 segments COBAS MIRA MIRA PLUS type autoanalyzer in PMMA
18101 Cuvette 12 segments Cobas Mira and MiraPlus type, in PMMA
18600 Multi-cuvettes for Konelab 20, in racks of 30 multicuvettes, in PMMA, 2 forceps
19550 Urine containers for testing drugs abuse, seal cap, security lock, chain custody
19702 Tips for gel loading in PP, vol. 0.1-200 ul, neutral, packing 1.000pcs
19720 Tips for gel loading 0.1-20 ul with filter, in neutral PP, sterile in rack of 96 pieces
19730 Tips for gel loading 0.1-100ul with filter, in neutral PP, sterile in rack of 96 pieces
20351 50ml conical test tubes PP, screw cap, graduated Ø30x115mm self-standing base
30001 No additive plain vacuum tube, PET, 2.0 ml, Ø13 x 75 mm, sterile, white cap, label
30002 No additive plain vacuum tube, PET, 3.0 ml, Ø13 x 75 mm, sterile, white cap, label
30003 No additive plain vacuum tube, in PET, 4.0 ml, Ø13x75 mm, sterile, white cap, label
30004 No additive plain vacuum tube, PET, 6.0 ml, Ø13x100mm, sterile, white cap, label
30011 Gel+clot activator vacuum tube vol. 3.5 ml, PET Ø13x75 mm, sterile, red cap label
30012 Gel+Clot activator vacuum tube 5 ml, PET, Ø13x100mm, sterile, red cap and label
30013 Gel+Clot activator vacuum tube 8 ml, PET, Ø16x100 mm, sterili, red cap and label
30014 Rapid Gel + Clot act. vacuum tube, vol. 4 ml, PET, Ø13x75mm sterile, red cap, label
30020 Clot activator vacuum tube in PET, vol. 2 ml, Ø13x75 mm, sterile, red cap and label
30021 Clot activator vacuum tube in PET, vol. 4 ml, Ø13x75 mm, sterile, red cap and label
30022 Clot activator vacuum tube in PET, vol. 6 ml, sterile, red cap and label
30023 Clot activator vacuum tube in PET, vol. 9 ml, sterile, red cap and label
30031 Gel+clot activator vacuum tube vol. 3.5 ml, in PET sterile, gold cap and label
30032 Gel+Clot activator vacuum tube vol. 5 ml, in PET, sterile, gold cap and label
30033 Gel+Clot activator vacuum tube vol. 8 ml, in PET, sterili, gold cap and label
30100 K2 EDTA vacuum tubes in PET, vol. 2 ml, Ø13 x 75 mm, sterile, violet cap and label
30101 K2 EDTA vacuum tubes in PET, vol. 3 ml, Ø13 x 75 mm, sterile, violet cap and label
30102 K2 EDTA vacuum tubes in PET, vol. 4 ml, Ø13 x 75 mm, sterile, violet cap and label
30103 K2 EDTA vacuum tubes in PET, vol. 6 ml, sterile, violet cap and label
30104 K2 EDTA vacuum tubes in PET, vol. 9 ml, sterile, violet cap and label
30200 K3 EDTA vacuum tubes in PET, vol. 2 ml, sterile, violet cap and label
30201 K3 EDTA vacuum tubes in PET, vol. 3 ml, Ø13 x 75 mm, sterile, violet cap and label
30202 K3 EDTA vacuum tubes in PET, vol. 4 ml, Ø13 x 75 mm, sterile, violet cap and label
30203 K3 EDTA vacuum tubes in PET, vol. 6 ml, sterile, violet cap and label
30204 K3 EDTA vacuum tubes in PET, vol. 9 ml, sterile, violet cap and label
30300 ESR vacuum tube in PET, with 3,8% 4NC, vol. 1.6ml, sterile, black cap and label
30500 3,2% 9NC vacuum tube in PET, vol. 2.7 ml, sterile, light blue cap, label
30501 3,2% 9NC vacuum tube in PET, vol. 3.6 ml, sterile, light blue cap, label
30503 3,2% 9NC vacuum tube in PET, vol. 2 ml, sterile, light blue cap, label
30600 Glucose NH+NF vacuum tube in PET, vol. 2 ml, sterile, grey cap and label
30601 Glucose NH+NF vacuum tube in PET, vol. 4 ml, sterile, grey cap and label
30800 Lithium Heparin vacuum tube in PET, vol. 2 ml, sterile, green cap and label

30801 Lithium Heparin vacuum tube in PET, vol. 4 ml, sterile, green cap and label
30802 Lithium Heparin vacuum tube in PET, vol. 6 ml, sterile, green cap and label
30900 Gel+Lithium Heparin vacuum tube vol. 4 ml, in PET, sterile, light green cap, label
30901 Gel+Lithium Heparin vacuum tube vol. 5 ml, in PET, sterile, light green cap, label
31400 Straws with urine collection device, length 90 mm, not sterile
31500 Straws with urine collection device for vacuum, straw length 170 mm, not sterile
35100 Vacuum urine test tube 9 ml, PET, conical bottom, Ø16x100, yellow cap, sterile
35150 Vacuum urine test tube 9 ml, PET, round bottom, without additive, sterile
35200 Vacuum urine test tube 9ml, PET conical bottom with boric acid yellow cap, sterile
35250 Vacuum urine test tube 9ml, PET round bottom, with boric acid, yellow cap, sterile
36005 K2EDTA+Gel, vacuum tubes, PET, vol. 5 ml, sterile, violet cap and label
50351 50ml conical test tubes in PP, with screw cap, graduated serigraphed,
50352 15ml conical test tubes in PP, with screw cap, graduated serigraphed,
50353 10ml conical test tubes in PP, with blue screw cap, graduated serigraphed,
50354 50ml conical test tubes in PP, self-standing base, serigraphed screw cap,
65351 50ml conical test tube PP with cap, graduated serigraphed, Ø30x114mm
65352 15ml conical test tube PP with cap, graduated serigraphed, Ø18x118mm
66001 Macro tips Gilson type, vol. 2,000-10,000ul, neutral, in rack of 25 pcs
66005 Macro tips Biohit type, vol. 2,000-10,000ul, neutral, in rack of 25 pieces
309247 120ml urine containers in PP, with device for vacuum tube, sterile ind wrapped
309253 Faeces container with screw cap, spoon, PP, 60ml, sterile - Angelini cases
309343 Urine test tube with pressure cap, PS, 10ml, sterile - Angelini cases
309346 Graduated urine container with screw cap, PP, 150ml sterile - Angelini cases
9941083653 Graduated faeces container with screw cap 60ml, sterile - APOTEKE cases
9943073653 Graduated urine container with screw cap, 150ml sterile - APOTEKE cases
02018138000000 Conical graduate sterile urine test tubes, in PS, 10ml, with light blue pressure cap, in single case with label.
02018139000000 Graduate sterile urine containers, PP, 100 ml, with screw cap, in single case with label.
02018139100000 Graduate sterile urine containers, PP, 100 ml, with screw cap and handle, in single case with label.
02018139200000 Graduate sterile urine containers, PP, 120ml, with screw cap and system for vacuum tubes, in single case with label.
02018140000000 Sterile faeces containers, PP, 60ml, with pressure cap and spoon, in single case with label.
02050089000000 "24 hours" urine sampling bottle, PE, 2.500ml, with label, not sterile, in single cases.
02083654000000 Graduate sterile urine containers, PP, 100 ml, with screw cap, individually wrapped, with label. In Dr. Marcus case
10001/SG Macro tips Gilson type, vol. 2,000-10,000ul, neutral, sterile in bags of 5 pcs
10005/SG Macro tips Biohit type, vol. 2,000-10,000ul, neutral, sterile in bags of 5 pieces
1001/B Tips Beckman type in PP, vol. 101-1000 ul, neutral, packing 1,000 pcs
1001/B/SG Tips Beckman type in PP, vol. 101-1000 ul, neutral, sterile in bags of 5 pcs
1001/E Tips Eppendorf type in PP, vol. 50-1000ul, blue colour, packing 1,000 pcs
1001/E* Tips Eppendorf type in PP, vol. 50-1000ul, blue colour, packing 1,000 pcs
1001/E/200 Tips for micropipettes Eppendorf type, PP, blue, 101-1000µl
1001/E/500 Tips Eppendorf type in PP, vol. 100-1000ul, blue colour, packing of 500 pcs
1001/E/CS Tips for micropipettes Eppendorf type, PP, blue, 101-1000µl

1001/E/SG Tips Eppendorf type in PP, vol. 50-1000ul, blue colour, sterile in bags of 5 pcs
1001/E/SG/CS Tips Eppendorf type in PP, vol. 50-1000ul, blue colour, sterile
1001/EN Tips Eppendorf type in PP, vol. 100-1000ul, neutral, packing 1,000 pcs
1001/G Tips Gilson type in PP, vol. 50-1000 ul, blue colour, packing 1,000 pcs
1001/G* Tips Gilson type in PP, vol. 50-1000 ul, blue colour, packing 1,000 pcs
1001/G/250 PIPETTE TIPS 101-1000 UL BLUE GILSON TYPE UL-BAGS OF 1,000 PCS
1001/G/CS Tips for micropipettes Gilson P500 P1000 type, PP, blue, 100-1000µl
1001/G/SG Tips Gilson type in PP, vol. 50-1000 ul, blue colour, sterile in bags of 5 pcs
1001/G/SG/CS Tips Gilson type, in PP blue colour, vol. 50 - 100 ul, sterile
1001/O Tips Oxford type in PP, vol. 101-1000ul, green colour, packing 1,000 pcs
1001/O/SG Tips Oxford type in PP, vol. 101-1000ul, green colour, sterile in bags of 5 pcs
1001/OB Tips Oxford type in PP, vol. 101-1000ul, blue colour, packing 1,000 pcs
1001/OB/SG Tips Oxford type in PP, vol. 101-1000ul, blue colour, sterile in bags of 5 pcs
1001/U Universal tips in PP, vol. 50-1000 ul, blue colour, packing 1,000 pcs
1001/U/SG Universal tips in PP, vol. 50-1000 ul, blue colour, sterile in bags of 5 pcs
1001/U/SG/CS Universal tips in PP, vol. 50-1000 ul, blue colour, sterile ind. wrapped
1001/UN Universal tips in PP, vol. 50-1000 ul, neutral colour, graduated, bags of 1,000 pcs
1001/UN/SG Universal tips in PP, vol. 50-1000 ul, neutral col, sterile
1001/UN/SG/CS Universal tips in PP, vol. 50-1000ul, neutral, graduated, sterile
1002/U Tips Eppendorf type in PP, 20-300ul graduated, neutral, packing 1,000 pcs
1002/U/SG Tips Eppendorf type in PP, 20-300ul graduated, neutral, sterile
1002/U/SG/CS Tips Eppendorf type in PP, 20-300ul, graduated, neutral, sterile
1003* 1.5ml micro test tubes in PP, Eppendorf type, with cap,
1003/B 1.5ml micro test tubes in PP, Eppendorf type, without cap
1003/C 0.5ml micro test tubes in PE, Beckman type, with cap
1003/F 1.5ml micro test tubes PP, Eppendorf type, graduated, cap, DNA-DNasi-RNasi free
1003/G 1.5ml micro test tubes in PP, Eppendorf type, graduated, with cap
1003/G* 1.5ml micro test tubes in PP, Eppendorf type, graduated, with cap
1003/G/500 1,5 micro test tube PP. eppendorf type.grad, bags 500 with cap. bags 500
1003/G/SG 1.5ml micro test tubes in PP, Eppendorf type, graduated, sterile
1003/HT 2ml micro test tubes in PP for Hyland-Travenol, without cap, Ø13 x 40 mm.
1003/HT/250 2ml micro test tubes in PP for Hyland-Travenol, without cap
1003/SCL 1.5 ml micro test tubes in PP, graduated, with SecureLock cap, DNase RNase DNA & pyrogen free
1003/SG 1.5ml micro test tubes in PP, Eppendorf type, with cap, sterile
1003/SG/100 MICRO T. TUBES EPPENDORF TYPE IN PP Ø10x40 MM VOL. 1.5 ML STERILE - BAGS OF 100 PCS
1003/SG/50 MICRO T. TUBES EPPENDORF TYPE IN PP Ø10x40 MM VOL. 1.5 ML IN BAGS OF 50 PCS - STERILE
1003/V 0.5ml micro test tubes in PP, Vitraton Akes type, with cap
1003/V* 0.5ml micro test tubes in PP, Vitraton Akes type, with cap
1005/S 10ml cylindrical test tubes in PS, without rim, graduated Ø16 x 100 mm.
1006/MO 3ml cylindrical test tubes in PP, graduated, without rim, Ø12 x 55 mm
1008/C Caps in PE Ø11 mm for test tubes for RIA art. 1014/C
1009/C/E 10ml conical test tubes in PS, with rim and label, graduated, Ø16 x 100 mm.
1009/C/T 10ml conical test tubes in PS, with rim and cap, graduated, Ø16 x 100 mm.
1009/C/T/CS 10ml conical test tubes in PS, with rim and with red cap, Ø16x100mm

1009/C/T/SG 10ml conical test tubes in PS, rim and with red cap, Ø16 x 100 mm, sterile
1009/C/T/SG/CS 10ml conical test tubes in PS, with rim and red cap, Ø16x100 mm, sterile
1009/C/T/SGCS 10ml conical test tubes in PS, with rim and red cap, Ø16x100 mm, sterile
1009/C/TB 10ml conical test tubes in PS, with rim and white cap Ø16x100 mm graduated
1009/C/TB/E 10ml conical test tubes PS, rim, white capn label, Ø16x100 mm. Graduated
1009/C/TB/E/SG 10ml conical test tubes PS, rim, white cap, label graduated, sterile
1009/C/TBE/CS 10ml conical test tubes in PS, with rim, label and white cap, Ø16x100 mm
1009/C/TE 10ml conical test tubes in PS, with rim, label and cap, Ø16 x 100 mm.
1009/C/TE/2000 10ml conical test tubes in PS, with rim, label and cap, Ø16 x 100 mm.
1009/C/TE/CS 10ml conical test tubes in PS, with rim, label and cap, Ø16x100 mm
1009/C/TE/SG 10ml conical test tubes in PS, with rim, label and cap, Ø16x100 mm, sterile
1009/C/TE/SG/CS 10ml conical test tubes in PS, with rim label cap, graduated
1009/C/TG 10ml conical test tubes PS, rim and with white cap Ø16x100 mm graduated
1009/C/TGE/SG 10ml conical test tubes PS, rim, label and yellow cap,Ø16x100mm, sterile
1009/C/TR 10ml conical test tubes in PS, with rim, graduated, Ø16x100 mm, red cap
1009/CTBESGCS 10ml conical test tubes PS, rim, white cap, label, graduated, sterile
1009/E 10ml cylindrical test tubes in PS, with rim, graduated, Ø16 x 100 mm, with label
1009/ESG 10ml cylindrical test tubes in PS, with rim, without cap, with label, sterile
1009/MO/E 10ml cylindrical test tubes in PP, with rim, graduated, with label
1009/MO/T 10ml cylindrical test tubes in PP, with rim, graduated, with cap
1009/MO/T/100 10ml cylindrical test tubes PP, with rim, graduated, Ø16x100 mm, cap
1009/MO/T/AL 10ml cylindrical test tubes in PP, with rim, graduated, Ø16 x 100 mm, cap
1009/MO/T/CS 10ml cylindrical test tubes PP, graduated, rim, red cap, ind. wrapped
1009/MO/T/SG 10ml cylindrical test tubes PP, Ø16x100mm, graduated, rim, sterile
1009/MO/TB 10ml cylindrical test tubes in PP, rim, graduated, Ø16x100mm, white cap
1009/MO/TB/E 10ml cylindrical test tubes in PP, rim and white cap, graduated, label
1009/MO/TB/E/SG 10ml cylindrical test tubes in PP, graduated, with rim, label
1009/MO/TBL/E/SG 10ml cylindrical test tubes in PP, graduated, with rim, label and cap
1009/MO/TBL/ESG 10ml cylindrical test tubes in PP, graduated, with rim, label and cap
1009/MO/TE 10ml cylindrical test tubes PP, with rim, graduated, Ø16x100mm, cap, label
1009/MO/TE/SG 10ml cylindrical test tubes in PP, graduated, rim, label, red cap sterile
1009/MO/TE/SG/C 10ml cylindrical test tubes PP, graduated, rim, label, cap sterile
1009/MO/TE/SG/CS 10ml cylindrical test tubes in PP, graduated, rim, label, cap, sterile
1009/MO/TG 10ml cylindrical test tubes in PP, rim, graduated, Ø16x100mm, yellow cap
1009/MO/TG/E/SG 10ml cylind test tubes PP with rim & label, Ø16x100 graduated
1009/MO/TGE2000 10ml cylindrical test tubes PP, rim, graduated, Ø16x100 mm, cap, label
1009/MO/TR 10ml cylindrical test tubes in PP, rim, graduated, Ø16x100 mm, with red cap
1009/MO/TRE2000 10ml cylindrical test tubes in PP, with rim, graduated, red cap, label
1009/MO/TV/E/SG 10ml cylind test tubes PP with rim & label, Ø16x100 graduated
1009/MOC/E 10ml conical test tubes in PP, with rim and label, graduated, Ø16 x 100 mm.
1009/MOC/T 10ml conical test tubes in PP, with rim and cap, graduated, Ø16 x 100 mm.

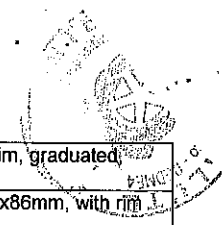
1009/MOC/T/SG 10ml conical test tubes in PP, graduated, Ø16x100mm, red cap, sterile
1009/MOC/TB 10ml conical test tubes PP, rim and white cap, graduated, Ø16 x 100 mm.
1009/MOC/TB/E 10ml conical test tubes PP, rim and white cap, graduated, Ø16x100mm.
1009/MOC/TE 10ml conical test tubes in PP, rim, label and cap, graduated, Ø16x100 mm.
1009/MOC/TE/SG 10ml conical test tubes PP, rim, label, cap, graduated, sterile
1009/MOC/TE/SG/CS 10ml conical test tubes in PP, rim, label and cap, graduated, sterile
1009/MOC/TR 10ml conical test tubes PP, with rim and inserted red cap, graduated.
1009/MOC/TRE 10ml conical test tubes in PP, with rim, label and red cap, Ø16 x 100 mm
1009/MOCTBESGCS 10ml conical test tubes in PP, graduated, rim, label, Ø16x100
1009/MOCTESG CONIC. 10 ML STER. TEST TUBES IN PP 16x100-W/CAP AND LABEL
1009/MOCTESGCS 10ml conical test tubes in PP, with rim label cap, graduated, sterile
1009/MOCTSG 10ml conical test tubes PP, graduated, Ø16x100mm, red cap, rim, sterile
1009/MOTBESGCS 10ml cylind test tubes PP rim & label, graduated white cap, sterile
1009/MOTBL/E/SG 10ml cylind test tubes PP with rim & label, Ø16x100 graduated
1009/MOTBLESG 10ml cylindrical test tubes PP, graduated, rim, label white cap, sterile
1009/MOTESG100 10ml cylindrical test tubes PP, graduated, rim, label, red cap sterile
1009/MOTESGCS 10ml cylindrical test tubes PP, graduated, rim label cap, sterile
1009/T 10ml cylindrical test tubes in PS, with rim, graduated, Ø16 x 100 mm, with cap
1009/T/SG 10ml cylindrical test tubes in PS, graduated, rim and cap, Ø16x100 mm, sterile
1009/T/SG/CS 10ml cylindrical test tubes in PS, graduated, rim and cap Ø16x100, sterile
1009/TA/E/SG/CS 10ml cylindrical test tubes PS graduated, label and light blue
1009/TB 10ml cylindrical test tubes in PS, rim, graduated, Ø16x100 mm with white cap
1009/TB/E 10ml cylindrical test tubes PS, rim, graduated, Ø16x100 mm, white cap, label
1009/TB/E/RACK 10ml cylindrical test tubes PS, rim, graduated, white cap, label
1009/TB/E/SG 10ml cylindrical test tubes in PS, graduated, with rim label white cap, Ø16x100mm, sterile
1009/TB/E/SG/CS 10ml cylindrical test tubes in PS, graduated, label and white
1009/TBE/CS 10ml cylindrical test tubes in PS, graduated, with rim label, Ø16x100 mm
1009/TE 10ml cylindrical test tubes in PS, with rim, graduated, Ø16x100mm, cap, label
1009/TE/CS 10ml cylindrical test tubes in PS, graduated, with rim label, Ø16x100 mm
1009/TE/SG 10ml cylindrical test tubes in PS, graduated, with rim label and cap, sterile
1009/TE/SG/20 CYLINDRICAL TEST TUBES 10ML PS W/CAP AND LABEL STERILE
1009/TE/SG/AL 10ml cylindrical test tubes PS graduated, rim, label, tongue cap, sterile
1009/TE/SG/CS 10ml cylindrical test tubes in PS, graduated, with rim label cap, sterile
1009/TE/SG/EST 10ml cylindr. test tubes in PS graduated, rim, sterile label, cap, sterile
1009/TG/E/SG/CS 10ml cylindrical test tubes in PS graduated, label and yellow cap
1009/TR 10ml cylindrical test tubes in PS, with rim, graduated, Ø16x100 mm, wit red cap
1009/TR/E 10ml cylindrical test tubes in PS, with rim, graduated, with label, red cap
1009/MO/TR/ESGCS 10ml cylindrical test tubes PP graduated, label, cap ind. Wrapped
1009/MOCTESGCS 10ml cylindrical test tubes in PP graduated, label and cap
1009/MOTESG100 10ml cylindri. test tube in PP Ø16x100 graduated, rim, cap label, sterile
101* Petri dishes Ø 90 mm, without triple vents, in PS aseptic
101/5 petri dishes 90mm w/out vents in PS 5 pcs/bag

101/A Petri dishes Ø90mm, PS, without triple vents, ASEPTIC
101/AN Petri dishes Ø 90 mm, without triple vents, in PS aseptic
101/B Petri dishes Ø90mm, PS, without triple vents, ASEPTIC
101/CS PETRI DISHES IN PS,DIAM.90MM- STERILIZED-IN D.WRAPPED
101/SG Petri dishes Ø 90 mm, without triple vents, in PS sterile R
101/SG* Petri dishes Ø 90 mm, without triple vents, in PS sterile R
101/SG/AN Petri dishes Ø 90 mm, without triple vents, in PS sterile R
101/SG/B Petri dishes Ø90, PS, without triple vents, sterile
1010/E 3ml cylindrical test tubes in PS, graduated, without rim, Ø12 x 55 mm, with label
1010/MO/E 3ml cylindrical test tubes in PP, graduated, without rim, Ø12x55mm, label
1010/MO/T 3ml cylindrical test tubes in PP, graduated, without rim, Ø12 x 55 mm, cap
1010/MO/TE 3ml cylindrical test tubes PP, graduated, no rim, Ø12x55 mm, cap and label
1010/MO/TE/SG 3ml cylindrical test tubes PP, graduated, cap label, no rim, sterile
1010/SB Tips Gilson Diamond type, PP, 2-200µ
1010/T 3ml cylindrical test tubes in PS, graduated, without rim, Ø12 x 55 mm, with cap
1010/TE 3ml cylindrical test tubes in PS, graduated, no rim, Ø12x55 mm, cap and label
1010/TE/SG 3ml cylindrical test tubes in PS, graduated, with cap label, no rim, sterile
1011/E 18ml faeces containers in PS, with pressure cap and spoon, Ø22x63 mm, label
1011/E/50 18ml faeces containers in PS, with pressure cap and spoon, Ø22x63mm, label
1011/E/AST 18ml faeces containers PS, with pressure cap and spoon, Ø22x63mm, label
1011/E/SG 18ml faeces containers PS, with pressure cap and spoon, label, sterile
1011/E/SG/CS 18ml faeces containers in PS, with pressure cap and spoon, label, sterile
1011/SG 18ml faeces containers in PS, with pressure cap and spoon, Ø22x63mm, sterile
1011/SG/CS 18ml faeces containers PS, with pressure cap and spoon, sterile
10110/16 SEDI-RATE ESR System Graduated pipette + test tube with 0.4 ml of NA Citrate
10110/75 Erythrocyte sedimentation rate sedi-rate system with sodium citrate in 13x75 tt
10110/P Disposable pipettes for ESR, in PS, graduated, Ø4,55x230mm
10110/PR test tube 0,2 NA citrate
1012/SG 18ml specimen containers, in PS, with pressure cap, Ø22 x 63 mm, sterile
1014/C 3ml cylindrical test tubes for RIA, in PS, graduated at 2ml, Ø11 x 70 mm
1014/C/T 3ml cylindrical test tubes for RIA, in PS, Ø11x70 mm, with not assembled cap
1014/C+1008/C Cylindrical test tubes 11x70mm for RIA with not assembled cap
1014+1128 4ml cylindrical test tubes for RIA, PS, graduated + stoppers with tongues PE
1015* Cuvettes for Spectrophotometer in PS Macro Type 10X10X45 mm. 10 x 10 x 45 mm
1015/K Cuvettes for spectrophotometer MACRO type, PS, 2-4ml
1015/SG Cuvettes for spectrophotometer MACRO type 4.5 ml, PS, sterile
10150/E 10ml test tubes with screw cap and self-standing base, in PP, graduated, label
10150/SG 10ml test tubes with screw cap and self-standing base, PP, graduated, sterile
10150/SG/CS 10ml test tubes with screw cap and self-standing base, PP, sterile
1016* Cuvettes for spectrophotometer SEMI-MICRO type, 2.5ml, in PS, 10x4x45 mm
10160/E 5ml test tubes with screw cap and self-standing base, in PP, graduated, label
10160/SG 5ml test tube in PP with screw cap and selfstanding base, graduated, sterile
10160/SG/CS 5ml test tube in PP with screw cap and selfstanding base, sterile
10170/SG 5 ml cylindrical test tubes PP, blue screw cap, not graduated, Ø12x75, sterile
10170/SG/CS 5 ml cylindrical test tubes in PP, blue screw cap, not graduated, sterile

1018/MO 5ml cylindrical test tubes in PP, with rim, graduated, Ø12 x 86 mm.
10180/SG 10ml test tubes in PP with self-satnding base, assembled Ø16x100, sterile
10180/SG/CS 10ml test tubes in PP with self-satnding base, assembled, Ø16x100, sterile
1022/5000 Technicon sample cups 1.5 ml, in PS, Ø13.80 x 22.60 mm 5000 pieces for box
1022/V Centrifichem sample cups 2 ml, in PS, Ø16 x 24 mm
1023/K/AN Technicon sample cups 4 ml, in PS, Ø17.26 x 37.90 mm
1024/V Centrifichem sample cup 0.25ml in PS, Ø14 x 16 mm
1025/B 5ml flat bottom test tubes in PS, graduated, with rim, Ø16 x 50 mm.
1025/MO 5ml flat bottom test tubes in PP, graduated, with rim, Ø16 x 60 mm.
1025/MO/B 5ml flat bottom test tubes in PP, graduated, with rim, Ø16 x 50 mm.
1025/U Universal tips in PP, vol. 50-1,250 ul, graduated, neutral, bags of 500 pcs
1025/U/SG Universal tips in PP, vol. 50-1,250 ul, graduated, neutral,sterile, bags of 5 pcs
1025/U/SG/CS Universal tips in PP, vol. 50-1,250 ul, graduated, neutral, sterile
1027 ARANCIO Stoppers closed at the bottom in PE for test tubes Ø16 mm, orange
1027 NERO Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour black
1027 NERO* Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour black
1027 ROSA Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour pink
1027 ROSA* Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour pink
1027* Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour orange
1027.01 Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour neutral
1027.01* Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour neutral
1027.02 Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour white
1027.02* Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour white
1027.03 Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour blue
1027.03* Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour blue
1027.04 Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour yellow
1027.04* Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour yellow
1027.05 Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour red
1027.05* Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour red
1027.06 Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour green
1027.06* Stoppers closed at the bottom in PE for test tubes Ø16 mm, colour green
1028 NERO TT CAPS BLACK Ø12 MM HIGH GRIP - CLOSE BOTTOM
1028 ROSA Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour pink
1028 ROSA* Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour pink
1028* Ø HIGH GRIP - ORANGE CAP
1028.01 Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour neutral
1028.01* Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour neutral
1028.02 Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour white
1028.02* Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour white
1028.03 Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour blue
1028.03* Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour blue
1028.04 Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour yellow
1028.04* Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour yellow

1028.05 Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour red
1028.05* Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour red
1028.06 Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour green
1028.06* Stoppers closed at the bottom in PE for test tubes Ø12 mm, colour green
1028/SG Stoppers closed at the bottom steril PE, test tubes Ø12 mm, colour light blue
1028/SG/01 Stoppers closed at the bottom steril PE, test tubes Ø12 mm, neutral colour
1028/SG/02 Stoppers closed at the bottom steril PE, test tubes Ø12 mm, white colour
1028/SG/03 Stoppers closed at the bottom steril PE, test tubes Ø12 mm, blue colour
1028/SG/04 Stoppers closed at the bottom steril PE, test tubes Ø12 mm, color yellow
1028/SG/05 Stoppers closed at the bottom steril PE, test tubes Ø12 mm, color red
1028/SG/06 Stoppers closed at the bottom steril PE, test tubes Ø12 mm, color green
1029 NERO Stoppers closed at the bottom in PE for test tubes Ø13 mm, black colour
1029 NERO* Stoppers closed at the bottom in PE for test tubes Ø13 mm, black colour
1029 ROSA Stoppers closed at the bottom in PE for test tubes Ø13 mm, pink colour
1029 ROSA* Stoppers closed at the bottom in PE for test tubes Ø13 mm, pink colour
1029* Stoppers closed at the bottom in PE for test tubes Ø13 mm, black colour
1029.01 Stoppers closed at the bottom in PE for test tubes Ø13 mm, neutral colour
1029.01* Stoppers closed at the bottom in PE for test tubes Ø13 mm, neutral colour
1029.02 Stoppers closed at the bottom in PE for test tubes Ø13 mm, white colour
1029.02* Stoppers closed at the bottom in PE for test tubes Ø13 mm, white colour
1029.03 Stoppers closed at the bottom in PE for test tubes Ø13 mm, blue colour
1029.03* Stoppers closed at the bottom in PE for test tubes Ø13 mm, blue colour
1029.04 Stoppers closed at the bottom in PE for test tubes Ø13 mm, yellow colour
1029.04* Stoppers closed at the bottom in PE for test tubes Ø13 mm, yellow colour
1029.05 Stoppers closed at the bottom in PE for test tubes Ø13 mm, red colour
1029.05* Stoppers closed at the bottom in PE for test tubes Ø13 mm, red colour
1029.06 Stoppers closed at the bottom in PE for test tubes Ø13 mm, green colour
1029.06* Stoppers closed at the bottom in PE for test tubes Ø13 mm, green colour
1030/E 130ml urine containers in PS, with pressure cap, graduated, Ø60 x 73 mm, label
1030/E/CS 130ml urine containers in PS, pressure cap, graduated, label Ø60x73mm
1030/E/SG 130ml urine containers in PS, pressure cap, graduated, label, sterile
1030/E/TS 130ml urine containers in PS, pressure cap, graduated, label Ø60x73 mm
1030/MO 130ml urine containers in PP, with pressure cap, graduated, Ø60 x 73 mm
1030/MO/E 130ml urine containers PP, with pressure cap, graduated, Ø 60x73mm, label
1030/MO/E/SG 130ml urine containers in PP, with pressure cap, graduated, label
1030/MO/SG 130ml urine containers in PP, pressure cap, graduated, Ø60x73 mm, sterile
1030/MO/T 130ml urine containers PP, inserted pressure cap, graduated, Ø60x73mm
1030/R 130ml urine containers in PS, pressure cap red colour graduated, Ø60x73mm
1030/S 130ml urine containers in PS, without cap, graduated, Ø60 x 73 mm
1030/SG 130ml urine containers in PS, with pressure cap, graduated, Ø60x73 mm, sterile
1030/T 130ml urine containers PS, with inserted pressure cap, graduated, Ø60 x 73 mm

1030/TS Graduated urine containers 130ml, PS, pressure cap
1031/500+1017 12ml urine test tubes wide mouth, PS, cap and label inserted
1031/CS 12ml urine test tubes wide mouth, in PS, with cap, individually wrapped
1031/CS/PI 12ml urine test tubes in PS, graduated, Ø17x105mm, hygienic cap
1031/E 12ml urine test tubes wide mouth, in PS, with cap label, graduated, Ø17 x 105 mm
1031/E/500 12ml urine test tubes wide mouth, in PS, with cap label, box of 500 pcs
1031/E/CS 12ml urine test tubes wide mouth, in PS, with cap, label, individually wrapped
1031/E/S 12ml urine test tubes wide mouth, in PS, with cap, label
1031/E/SG/CS 12ml urine test tubes wide mouth, PS, cap and label, grad, sterile
1031/E/SG/CS/PI 12ml urine test tubes wide mouth, PS, cap and label, grad, sterile
1031/G 12ml urine test tubes wide mouth, in PS, yellow cap, graduated, Ø17x105 mm
1031/S 12ml urine test tubes wide mouth, in PS, without cap, graduated, Ø17 x 105 mm
1031/S/1500 12ml urine test tubes wide mouth PS, graduated, Ø17x105mm without cap
1031/SG/CS 12ml urine test tubes wide mouth, in PS, vap, grad., Ø17x105mm, sterile
1031/SG/CS/PI 12ml urine test tubes, in PS, graduat. Ø17x105, cap hygienic sterile
1031/T 12ml urine test tubes wide mouth PS, graduated, Ø17x105mm with cap
1031/TE 12ml urine test tubes wide mouth, PS, with inserted cap, label, graduated
1031/TE/SG 12ml urine test tubes wide mouth, PS, with inserted cap, label, sterile
1034.01 Caps in PE for urine test tube wide mouth art. 1031/S colour red
1034.02 Caps in PE for urine test tube wide mouth art. 1031/S colour yellow
1034/R Caps in PE for urine test tube wide mouth art. 1031/S colour red
1035/E 5ml flat bottom test tubes in PS, graduated, with rim and label, Ø16 x 60 mm.
1035/MO/E 5ml flat bottom test tubes in PP, graduated, with rim and label, Ø16 x 60 mm.
1035/MO/T 5ml flat bottom test tubes in PP, graduated, with rim and cap, Ø16 x 60 mm.
1035/MO/TE 5ml flat bottom test tubes in PP, with rim, graduated, cap and label
1035/MO/TE/SG 5ml flat bottom test tubes in PP, rim cap and label, graduated, sterile
1035/T 5ml flat bottom test tubes in PS, graduated, with rim and cap, Ø16 x 60 mm.
1035/TE 5ml flat bottom test tubes in PS, rim, graduated, with cap and label, Ø16x60 mm.
1035/TE/SG 5ml flat bottom test tubes in PS, rim cap and label, graduated, sterile
10351/E 50ml conical test tubes in PP, with screw cap, graduated, graduated, sterile, label
10351/E/SG 50ml conical test tubes in PP, with screw cap, graduated, sterile
10351/P 50ml conical test tubes in PP, with screw cap not assembled, graduated
10351/R 50ml conical test tubes in PP, with red screw cap, graduated, Ø30 x 115 mm
10351/S 50ml conical test tubes in PP, light blue screw cap not ins., graduated
10351/SG 50ml conical test tubes in PP, with screw cap, graduated, sterile
10351/SG/25 CONICAL TEST TUBES IN PP 30X115 MM - 50 ML SCREW CAP, STER
10351/SG/50/B CONICAL TT IN PP-50 ML - BLUE CAP SCREW CAP, STER.
10351/SG/500 50ml conical test tube PP with screw cap, graduated, sterile
10351/SG/CS 50ml conical test tubes in PP, with screw cap, graduated, sterile
10351/SG/CS/500 50ml conical test tube PP with screw cap, graduated, sterile
10351/TA/SG 50ml conical test tubes in PP, light blue screw cap graduated, sterile
10352/B 15ml conical test tubes in PP, with blue screw cap, graduated, Ø17 x 120 mm.



10352/E CONICAL TT IN PP 17X120MM 15ML SCREW CAP - BAGS OF 100 PCS
10352/E/SG 15ml conical test tubes in PP, with screw cap and label graduated, sterile
10352/R 15ml conical test tubes in PP, with red screw cap, graduated, Ø17 x 120 mm.
10352/SG 15ml conical test tubes in PP, with screw cap, graduated, sterile
10352/SG/100 CONICAL TEST TUBES IN PP 17X120MM- 15 ML - SCREW CAP, STERILE
10352/SG/50/B CONICAL TT PP 17X120 - 50ML 50 PCS/BOX - BLUE CAP CAP, STERILE
10352/SG/CS 15ml conical test tubes in PP, with screw cap, graduated, sterile
10361/B 10ml cylindrical test tubes in PS, with white screw cap, Ø16 x 100 mm.
10361/E CYL. T.TUBES W/SCREW CAP IN PS DIAM. VOL.10 ML WITH LABEL
10361/E/SG 10ml cylindrical test tubes in PS, with screw cap, Ø16 x 100 mm., sterile
10361/MO 10ml cylindrical test tubes in PP, with screw cap, Ø16 x 100 mm.
10361/MO/S 10ml cylindrical test tubes in PP, without cap, Ø16x100mm not graduated
10361/MO/SG 10ml cylindrical test tubes in PP, with screw cap, Ø16 x 100 mm., sterile
10361/MO/SG/CS 10ml cylindrical test tubes in PP, with screw cap, Ø16x100mm, sterile
10361/MO/SG/TG 10ml cylindrical test tubes in PP, with yellow screw cap, sterile
10361/MO/TB/500 10ml cylindrical test tube PP, white screw cap not assembled,
10361/P 10ml cylindrical test tubes in PS, with screw cap not assembled, Ø16 x 100 mm.
10361/R 10ml cylindrical test tubes PS , red screw cap not assembled, Ø16 x 100 mm.
10361/S 10ml cylindrical test tubes in PS. screw cap not mounted
10361/SG 10ml cylindrical test tubes in PS, with screw cap, Ø16 x 100 mm., sterile
10361/SG/150 10ml cylindrical test tubes in PS, screw cap, Ø16x100mm sterile
10361/SG/20 CYLINDRICAL TT 10 ML SCREW CAP 16X100 PS STERILE 20 PCS/BAG
10361/SG/25 10ml cylindrical test tubes in PS, screw cap, Ø16x100mm sterile
10361/SG/CS 10ml cylindrical test tubes in PS, with screw cap, Ø16x100 mm sterile
10361/SG/CS/100 10ml cylindrical test tubes in PS, with screw cap, 16x100 mm
10361/TA/SG 10ml cylindrical test tube PS, light blue screw cap, Ø16 x 100 mm., sterile
10362/MO 15ml cylindrical test tubes in PP, with screw cap, Ø16x120 mm Ø16x120mm
10362/MO/SG 15ml cylindrical test tubes PP,screw cap, Ø16x120 mm, sterile
10362/MO/SG/CS 15ml cylindrical test tubes in PP, with screw cap, Ø16x120mm, sterile
10362/P 15ml cylindrical test tubes in PS, with screw cap not assembled, Ø16 x 120 mm.
10362/SG 15ml cylindrical test tubes in PS, with screw cap, Ø16 x 120 mm., sterile
10362/SG/CS 15ml cylindrical test tubes in PS, with screw cap, Ø16x120mm, sterile
10362/TA/SG 15ml cylindrical test tubes in PS, with screw cap, Ø16x120 mm sterile
10363/P 20ml cylindrical test tubes in PS, with screw cap not assembled, Ø16 x 150 mm.
10363/R 20ml cylindrical test tubes in PS, with red screw cap, Ø16 X 150 mm
10363/SG 20ml cylindrical test tubes in PS, with screw cap, Ø16 x 150 mm., sterile
10363/SG/CS 20ml cylindrical test tubes in PS, with screw cap, sterile ind wrapped
10363/TA/SG 20ml cylindrical test tube in PS,light blue screw cap, Ø16 x 150 mm., sterile
10363/TG/SG 20ml cylindrical test tube in PS, yellow screw cap, Ø16 x 150 mm., sterile
1038/E 5ml cylindrical test tubes in PS, with rim, graduated, Ø12 x 86 mm, with label
1038/MO/E 5ml cylindrical test tubes in PP, with rim, graduated, Ø12 x 86 mm, with label

1038/MO/T 5ml cylindrical test tubes in PP, with rim, graduated, Ø12 x 86 mm, with cap
1038/MO/T/100 5ml cylindrical test tubes PP Ø12x86mm, with rim and cap, graduated
1038/MO/TE/SG 5ml cylindrical test tubes in PP, rim, cap, graduated, Ø12x86 mm, sterile
1038/MO/TE 5ml cylindrical test tubes PP, rim, graduated, Ø12x86 mm, cap and label
1038/MO/T/SG 5ml cylindrical test tubes in PP, rim, cap and label, graduated sterile
1038/MO/TG/E/SG 5ml cylindrical test tubes, in PP, with rim, yellow cap and
1038/MO/TN 5ML CYLINDRICAL TT IN PP 12X86 GRADUATED - CAP NOT INSERTED
1038/T 5ml cylindrical test tubes in PS, with rim, graduated, Ø12 x 86 mm, with cap
1038/TE 5ml cylindrical test tubes in PS, with rim, graduated, Ø12x86 mm,cap and label
1038/TE/SG 5ml cylindrical test tubes in PS, rim, cap and label, graduated, sterile
1038/TG/E/SG 5ml cylindrical test tubes in PS, rim, yellow cap label graduated, sterile
1038/TR/E 5ml cylindrical test tubes in PS,rim, graduated, Ø12x86 mm, red cap and label
1040/P 120ml urine containers in PS, with self-adhesive lid, graduated, Ø73 x 66
1040/P/S 120 ml urine containers in PS, graduated, Ø73 x 66 mm, without lid
1040/S 120ml urine containers in PP, without self-adhesive lid, not graduated, Ø73 x 66
1041/E 30ml containers in PS, with pressure cap, Ø35 x 41 mm, with label
1041/S 30ml containers in PS, without cap, Ø35 x 41 mm
1041/SG 30ml containers in PS, with white pressure cap, Ø35 x 41 mm, sterile
1041/T 30ml containers in PS, with cap, Ø35 x 41 mm
10450/SG 14ml test tube with 2 position closure cap, PS, graduated, Ø17x100 mm, sterile
10450/SG/CS 14ml test tube with 2 position closure cap, PS, graduated, sterile
10470/SG 5ml test tubes with 2 position closure cap, in PS, graduated, sterile
10470/SG/25 5ml test tubes, PS, 2 position closure cap, graduated, sterile
10470/SG/CS 5ml test tubes with 2 position closure cap, in PS, graduated, sterile
1050/E 150ml urine containers in PS, with pressure cap, graduated, Ø60 x 73 mm, label
1050/E/SG 150ml urine containers in PS, pressure cap, graduated, label, sterile
1050/S 150ml urine containers in PS, without cap, graduated, Ø60 x 73 mm
1050/SG 150ml urine containers in PS, with pressure cap, graduated, Ø60x73 mm, sterile
1050/T 150ml urine containers PS, with inserted pressure cap, graduated, Ø60 x 73 mm
1050/TS 150ml urine containers PS, with red pressure cap, graduated, sterile
1051/E 60ml sputum containers, in PS, with pressure cap, Ø60 x 34 mm, with label
1051/E/SG 60ml sputum containers, in PS, with pressure cap, Ø60x34 mm, sterile, label
1051/E/SG/CS 60ml sputum containers, in PS, pressure cap, label, Ø60x34mm, sterile
1051/S 60ml sputum containers, in PS, without cap, Ø60 x 34 mm
1051/S/CS 60ml sputum containers, in PS, without cap, Ø60x34mm individually wrapped
1051/S/SG/CS 60ml sputum containers, in PS, no cap, Ø60x34mm, sterile ind wrapped
1051/SG 60ml sputum containers, in PS, with pressure cap, Ø60 x 34 mm, sterile
1051/SG/CS 60ml sputum containers, PS, pressure cap, Ø60x34mm, sterile ind. Wrapped
1051/T 60ml sputum containers, in PS, with cap, Ø60 x 34 mm
1061/S 35ml containers in PS, without cap, Ø35 x 61 mm
1061/SG 35ml containers in PS, with white pressure cap, Ø35 x 61 mm, sterile
1061/SG/CS 35ml containers PS, white pressure cap, Ø35 x 61 mm, sterile, ind. wrapped
1070/E 7ml containers "bijou" type, in PS, Ø20 x 50 mm, with screw cap and label

1070/E/SG 7ml containers "bijou" type, in PS, Ø20x50 mm, screw cap and label, sterile
1070/SG 7ml containers "bijou" type, in PS, Ø20 x 50 mm, with white screw cap, sterile
1075/100 5ml cylindrical test tubes in PS, not graduated, without rim, Ø12 x 75 mm
1075/250 5ml cylindrical test tubes PS not graduated, no rim, Ø12 x 75 mm
1075/C 4.5 ml conical test tubes in PS, Ø12x75mm, not graduated without rim
1075/C/T 4.5 ml conical test tubes in PS, Ø12x75mm, not graduated without rim
1075/C/T/SG 4.5 ml conical test tubes in PS, Ø12x75mm, not graduated, with cap, sterile
1075/E 5ml cylindrical test tubes in PS, not graduated, no rim, Ø12 x 75 mm, with label
1075/MO 5ml cylindrical test tubes in PP, not graduated, without rim, Ø12 x 75 mm
1075/MO/100 5ml cylindrical test tubes in PP, not graduated, without rim, Ø12 x 75 mm
1075/MO/250 5ml cylindrical test tubes PP not graduated, without rim, Ø12 x 75 mm
1075/MO/SG 5ml cylindrical test tubes PP, 5ml, Ø12x75mm, Sorvall type, no rim, sterile R
1075/MO/T CYL. TT 5 ML 12X75 PP SORVALL TYPE W/CAP - WITHOUT RIM
1075/MO/T/SG 5ml cylindrical test tubes in PP, Ø12x75 mm, no rim, with red cap, sterile
1075/MO/TE CYL. TT 5 ML 12X75 PP SORVALL TYPE W/CAP - WITHOUT RIM
1075/MOC 4.5 ml conical test tubes in PP, Ø12x75mm, not graduated without rim
1075/S 5ml cylindrical test tubes in PS, not graduated, without rim Ø12x75 mm
1075/SG 5ml cylindrical test tubes PS, 5ml, Ø12x75mm, Sorvall type, no rim, sterile R
1075/SG/50 5ml cylindrical test tubes PS, 5ml, Ø12x75mm, Sorvall type, no rim, sterile
1075/SG/CS 5ml cylindrical test tubes PS, not graduated, without rim, Ø12x75mm, sterile
1075/T 5ml cylindrical test tubes in PS, not graduated, without rim, Ø12x75 mm, cap
1075/T/SG 5ml cylindrical test tubes PS, Sorvall type, no rim, cap, Ø12x75 mm, sterile
1075/TE 5ml cylindrical test tubes in PS, not graduated, no rim, Ø12x75mm, cap label
1075+1128 5ml cylindrical test tubes PS not graduated, Ø12x75 mm, cap not inserted
1075+1128.02 5ml cylindrical test tubes PS not graduated, white cap not inserted
1081/CS 150ml urine containers in PS, with screw cap, graduated, Ø60x83mm
1081/E 150ml urine containers in PS, with screw cap, graduated, Ø60 x 83 mm, label
1081/T 150ml urine containers in PS, assembled screw cap, graduated, Ø60 x 83 mm
10831/P Laboratory spatula 150 mm, spatula/spatula type
10831/SG Laboratory spatulas in PS type spatula+spatula 150 mm sterile
10831/SG/CS Laboratory spatulas in PS, type spatula+spatula, 150 mm, sterile
10832/P Laboratory spatula 180 mm, spatula/spatula type
10832/SG Laboratory spatula 180 mm, spatula/spatula type, sterile
10832/SG/CS Laboratory spatulas, in high impact PS, length 180mm, sterile ind. wrapped
10833/P Laboratory spatula 180 mm, spatula/spoon type
10833/SG Laboratory spatula 180 mm, spatula/spoon type, sterile
10833/SG/CS Laboratory spatulas, high impact PS, 180mm, type spatula /spoon, sterile
10834/P Laboratory spatula 210 mm, spatula/spoon type
10834/SG Laboratory spatulas, high impact PS, 210mm, spatula-spoon type, sterile
10834/SG/CS Laboratory spatulas, in PS, 210mm, spatula-spoon, sterile ind. wrapped
1091/E 150ml urine containers in PS, screw cap, graduated, label, Ø60x83 mm, sterile
1103/SCL 0.5ml micro test tubes PP, graduated, with SecureLock cap, DNase RNase DNA & pyrogen free
1120/N Square petri dishes 120x120 mm with triple vents, in PS,
1127 ROSA Stoppers with tongues in PE for test tubes Ø16 mm, colour pink

1127 ROSA* Stoppers with tongues in PE for test tubes Ø16 mm, colour pink
1127* TEST TUBES CAPS DIAM.16-W/TONGUES-LIGHT BLUE
1127.01 Stoppers with tongues in PE for test tubes Ø16 mm, colour neutral
1127.01* Stoppers with tongues in PE for test tubes Ø16 mm, colour neutral
1127.02 Stoppers with tongues in PE for test tubes Ø16 mm, colour white
1127.02* Stoppers with tongues in PE for test tubes Ø16 mm, colour white
1127.03 Stoppers with tongues in PE for test tubes Ø16 mm, colour blue
1127.03* Stoppers with tongues in PE for test tubes Ø16 mm, colour blue
1127.04 Stoppers with tongues in PE for test tubes Ø16 mm, colour yellow
1127.04* Stoppers with tongues in PE for test tubes Ø16 mm, colour yellow
1127.05 Stoppers with tongues in PE for test tubes Ø16 mm, colour red
1127.05* Stoppers with tongues in PE for test tubes Ø16 mm, colour red
1127.06 Stoppers with tongues in PE for test tubes Ø16 mm, colour green
1127.06* Stoppers with tongues in PE for test tubes Ø16 mm, colour green
1127/SG Stoppers with tongues in PE steril, for test tubes Ø16 mm, colour light blue
1127/SG/01 Stoppers with tongues in PE steril, for test tubes Ø16 mm, colour neutral
1127/SG/02 Stoppers with tongues in PE steril, for test tubes Ø16 mm, white color
1127/SG/03 Stoppers with tongues in PE steril, for test tubes Ø16 mm, color blue
1127/SG/04 Stoppers with tongues in PE steril, for test tubes Ø16 mm, color yellow
1127/SG/05 Stoppers with tongues in PE steril, for test tubes Ø16 mm, color red
1127/SG/06 Stoppers with tongues in PE steril, for test tubes Ø16 mm, color green
1128 ROSA Stoppers with tongues in PE for test tubes Ø12 mm, colour pink
1128 ROSA* Stoppers with tongues in PE for test tubes Ø12 mm, colour pink
1128* TEST TUBES CAPS DIAM.12 W/TONGUES-LIGHT BLUE
1128.01 Stoppers with tongues in PE for test tubes Ø12 mm, colour neutral
1128.01* Stoppers with tongues in PE for test tubes Ø12 mm, colour neutral
1128.02 Stoppers with tongues in PE for test tubes Ø12 mm, colour white
1128.02* Stoppers with tongues in PE for test tubes Ø12 mm, colour white
1128.03 Stoppers with tongues in PE for test tubes Ø12 mm, colour blue
1128.03* Stoppers with tongues in PE for test tubes Ø12 mm, colour blue
1128.04 Stoppers with tongues in PE for test tubes Ø12 mm, colour yellow
1128.04* Stoppers with tongues in PE for test tubes Ø12 mm, colour yellow
1128.05 Stoppers with tongues in PE for test tubes Ø12 mm, colour red
1128.05* Stoppers with tongues in PE for test tubes Ø12 mm, colour red
1128.06 Stoppers with tongues in PE for test tubes Ø12 mm, colour green
1128.06* Stoppers with tongues in PE for test tubes Ø12 mm, colour green
1128/SG Stoppers with tongues in PE for test tubes Ø12 mm, colour light blue
1128/SG/01 Stoppers with tongues in PE for test tubes Ø12 mm, colour neutral
1128/SG/02 Stoppers with tongues in PE for test tubes Ø12 mm, colour white
1128/SG/03 Stoppers with tongues in PE for test tubes Ø12 mm, colour blue
1128/SG/04 Stoppers with tongues in PE for test tubes Ø12 mm, colour yellow
1128/SG/05 Stoppers with tongues in PE for test tubes Ø12 mm, colour red

1128/SG/06 Stoppers with tongues in PE for test tubes Ø12 mm, colour green
1130 MALVA Stoppers with tongues in PE for test tubes Ø13 mm, colour mauve
1130 NERO Stoppers with tongues in PE for test tubes Ø13 mm, colour black
1130 ROSA Stoppers with tongues in PE for test tubes Ø13 mm, colour pink
1130 ROSA* Stoppers with tongues in PE for test tubes Ø13 mm, colour pink
1130* CAP DIAM. 13 FOR TUBES 1375 LIGHT BLUE
1130.01 Stoppers with tongues in PE for test tubes Ø13 mm, colour neutral
1130.01* Stoppers with tongues in PE for test tubes Ø13 mm, colour neutral
1130.02 Stoppers with tongues in PE for test tubes Ø13 mm, colour white
1130.02* Stoppers with tongues in PE for test tubes Ø13 mm, colour white
1130.03 Stoppers with tongues in PE for test tubes Ø13 mm, colour blue
1130.03* Stoppers with tongues in PE for test tubes Ø13 mm, colour blue
1130.04 Stoppers with tongues in PE for test tubes Ø13 mm, colour yellow
1130.04* Stoppers with tongues in PE for test tubes Ø13 mm, colour yellow
1130.05 Stoppers with tongues in PE for test tubes Ø13 mm, colour red
1130.05* Stoppers with tongues in PE for test tubes Ø13 mm, colour red
1130.06 Stoppers with tongues in PE for test tubes Ø13 mm, colour green
1130.06* Stoppers with tongues in PE for test tubes Ø13 mm, colour green
1131/E 12ml special urine test tubes in PS, graduated, Ø17x105 mm, with cap and label
1131/E/S 12ml special urine test tubes in PS, graduated, cap and not assembled label
1131/G 12ml special urine test tubes in PS, graduated, Ø17x105 mm, with yellow cap
1131/S 12ml special urine test tubes in PS, graduated, Ø17x105 mm, without cap
1131/S/1500 12ml special urine test tubes in PS, graduated, Ø17x105 mm, without cap
1131/T 12ml special urine test tubes in PS, graduated, Ø17x105 mm, with cap
1134.01 Caps in PE for special urine test tubes 1131/S colour red
1134.02 Caps in PE for special urine test tubes 1131/S colour yellow
11452/E 15ml conical test tubes in PS, screw cap yellow colour and label, graduated
11452/S 15ml conical test tube in PS, separated screw yellow cap
11452/SG 15ml conical test tubes in PS, with screw cap yellow colour, graduated, sterile
11452/SG/CS 15ml conical test tubes in PS, yellow screw cap, Ø17x120 mm, graduated, sterile ind wrapped
11581/E/SG Centrifuge conical test tubes in PS da 13.5ml, screw cap, label, sterile
11581/R Centrifuge conical test tubes in PS da 13.5ml, Ø16x110 mm, with red screw cap
11581/SG Centrifuge conical test tubes in PS da 13.5ml, Ø16x110 mm, screw cap, sterile
11581/SG/450 Centrifuge conical test tubes in PS, 13.5ml, Ø16x110, screw cap, sterile
11581/SG/CS Centrifuge conical test tubes PS da 13.5ml, Ø16x110mm, screw cap, sterile
11581/SG/TR Centrifuge conical test tubes in PS, 13.5ml, Ø16x110, red cap
11581/SG/TR/450 Centrifuge conical test tubes in PS, 13.5ml, Ø16x110, red
11581/SGCSTR250 Centrifuge conical test tubes in PS, 13.5ml, Ø16x110, red
11581/TR/SG/450 Centrifuge conical test tubes in PS, 13.5ml, Ø16x110, red
11681/E Centrifuge conical test tubes in PP, 13.5ml, Ø16x110 mm, screw cap and label
11681/SG Centrifuge conical test tubes in PP da 13.5ml, Ø16x110 mm, screw cap, sterile
11681/SG/CS Centrifuge conical test tubes in PP da 13.5ml, screw cap, sterile

1201/M Tips MLA type in PP, vol. 101-1000 ul, neutral, packing 1,000pcs
1201/M/SG Tips MLA type in PP, vol. 101-1000 ul, neutral, sterile in bags of 5pcs
1202/C Tips Eppendorf type in PP, 0,5-10 µl cristal, neutral, packing 1,000pcs
1202/C/55 Tips Eppendorf type in PP, 0,5-10 µl cristal, neutral, bags 5.500 pz
1202/C/SG Tips Eppendorf type in PP, 0,5-10 ul cristal, neutral, sterile in bags of 5pcs
1202/C/SG/CS Tips in PP Eppendorf Cristal type, 0,5-20ul, neutral color, steril
1202/E Tips Eppendorf type in PP, vol. 5-200 ul, yellow colour, packing 1,000pcs
1202/E* Tips Eppendorf type in PP, vol. 5-200 ul, yellow colour, packing 1,000pcs
1202/E/5 Tips for micropipettes Eppendorf type, PP, yellow, 5-200µl
1202/E/500 Tips Eppendorf type in PP, vol. 5-200 ul, yellow colour, packing 500 pcs
1202/E/CS Tips for micropipettes Eppendorf type, PP, yellow, 5-200µl
1202/E/N Tips for micropipettes Eppendorf type, PP, neutral, 5-200µl
1202/E/SG Tips Eppendorf type in PP, vol. 5-200 ul, yellow colour, sterile in bags of 5pcs
1202/E/SG/CS Tips Eppendorf type in PP, vol. 5-200 ul, yellow colour, sterile
1202/EN Tips Eppendorf type in PP, vol. 5-200 ul, neutral colour, packing 1,000pcs
1202/G Tips Gilson type in PP, vol. 5-200 ul, yellow colour, packing 1,000pcs
1202/G* Tips Gilson type in PP, vol. 5-200 ul, yellow colour, packing 1,000pcs
1202/G/SG Tips Gilson type in PP, vol. 5-200 ul, yellow colour, sterile in bags of 5pcs
1202/G/SG/CS Tips Gilson type in PP, vol. 5-200 ul, yellow colour, sterile
1202/M Tips MLA type in PP, vol. 5-200 ul, neutral colour, packing 1,000pcs
1202/M/CS Tips for micropipettes MLA type, PP, neutral, 5-200µl
1202/M/SG Tips MLA type in PP, vol. 5-200 ul, neutral colour, sterile in bags of 5pcs
1202/M/SG/CS Tips MLA type in PP, vol. 5-200 ul, neutral colour, sterile
1202/MG Tips Gilson type in PP, vol. 0.1-10ul, neutral colour, packing 1,000pcs
1202/MG/SG Tips Gilson type in PP, vol. 0.1-10ul, neutral colour, sterile in bags of 5pcs
1202/MG/SG/CS Tips Gilson type in PP, vol. 0.1-10ul, neutral colour, sterile ind. wrapped
1202/OM Tips Oxford type in PP, vol. 5-200 ul, neutral colour, packing 1,000pcs
1202/OM/CS Tips for micropipettes Oxford type, PP, neutral, 5-200µl
1202/OM/SG Tips Oxford type in PP, vol. 5-200 ul, neutral colour, sterile in bags of 5pcs
1202/OM/SG/CS Tips for micropipettes Oxford type, PP, neutral, 5-200µl
1202/U Universal tips in PP, vol 2-200ul graduated, yellow, packing 1,000pcs
1202/U/SG Universal tips in PP, vol 2-200ul graduated, yellow, sterile in bags of 5pcs
1202/U/SG/CS Universal tips in PP, vol 2-200ul graduated, yellow, sterile ind. wrapped
1203/U Universal tips in PP, graduat. vol. 2-200 ul, neutral colour, bags of 1,000 pieces
1203/U/SG Universal tips in PP, graduat. vol. 2-200 ul, neutral colour, sterile
1203/U/SG/CS Universal tips in PP, graduated vol.2-200 ul, neutral colour, sterile
1204/U Universal tip in PP, yellow colour, 2-200ul, beveled, bags of 1000 pcs
1204/U/SG Micropipettes tips universal type, yellow colour, 2-200µl
1204/U/SG/CS Universal tips in PP, vol. 2-200ul, yellow, sterile ind. wrapped
1211/CS STOOL CONTAINERS 60ML PS 41X57 W/PRESSURE CAP+SPOON IND.WRAPP
1211/E/SG 60ml faeces containers PS, pressure cap and spoon, label, sterile
1211/E/SG/CS 60ml faeces containers PS with pressure cap, spoon, label, sterile

1211/SG 60ml faeces containers in PS, with pressure cap and spoon, sterile
1211/SG/CS 60ml faeces containers in PS, with pressure cap and spoon
1212/CS 60ml specimen containers, in PS, with pressure cap, Ø41 x 55 mm
1212/E/SG 60ml specimen containers, in PS, with pressure cap, sterile, label
1212/SG 60ml specimen containers, in PS, with pressure cap, Ø41 x 55 mm, sterile
1212/SG/CS 60ml specimen containers, in PS, with pressure cap, sterile ind wrapped
1222/RO 4ml scintillation vials in PE, with screw cap, Ø13 x 54 mm
1230/10 URINE CONTAINERS VOL.200ML IN PS SCREW CAP 10 PCS/PK
1230/100 URINE CONTAINERS VOL.200 ML IN PS SCREW CAP 100 PCS/PK
1230/CS STERILE URINE CONTAINERS VOL 200 ML IN PS SCREW CAP IND WRAPPED
1230/E 200ml urine containers in PS, with screw cap, graduated, Ø64 x 85 mm, label
1230/E/SG 200ml urine containers in PS, screw cap, graduated, label, Ø64x85mm, sterile
1230/E/SG/DB Graduated urine containers 200ml, PS, screw cap, with label
1230/S/E 200ml urine containers in PS, without cap, graduated, Ø64 x 85 mm, with label
1230/SG Graduated urine containers 150ml, PP, yellow screw cap, ind. wrapped
1230/T 200ml urine containers in PS, with assembled screw cap, graduated,
1230/TE 200ml urine containers in PS, inserted screw cap, graduated, Ø64x85mm, label
1230/TS Graduated urine containers 150ml, PP, screw cap, ind. wrapped
1230SG 200 ml containers in PP, with screw cap, sterile individually wrapped
1250/T Coulter cups for cell counters 35ml, in PS, with PE cap, graduated at 10/20ml
1250/T/BULK Coulter cups for cell counters 35ml, PS, with PE cap, 31x55mm graduated
1250/T/SG Coulter® cell counters cups in PS, 35 ml, with cap
12731/E Sampling tanks 2,500ml, for 24h urine collection, PE, graduated, with label
12731/E/SG URINE CONTAINERS 24 HOURS 2500 ML-TANK IN PE W/LABEL STERILE
12731/SAC Sampling tanks 2,500ml, for 24h urine collection, PE, individually wrapped
12731/SG 24h urine collection tank, PE, 2,500ml, sterile ind. wrap, graduated, screw cap
12731K Sampling tanks 2,500ml, for 24h urine collection, Kartell type
1302/B Tips Biohit type in PP, vol. 2-300 ul, neutral colour, packing 1,000pcs
1302/B/SG Tips Biohit type in PP, vol. 2-300 ul, neutral colour, sterile in bags of 5pcs
1302/B/SG/CS Biohit tips, neutral colour, 2-300 ul, individually wrapped
1302/G Tips Gilson type in PP, 2-200 ul graduated, neutral, packing 1,000pcs
1302/G/SG Tips Gilson type in PP, 2-200 ul graduated, neutral, sterile in bags of 5pcs
1302/G/SG/CS Tips Gilson type in PP, 2-200 ul graduated, neutral, sterile, ind. wrapped
1303* 2ml micro test tubes in PP, graduated, with cap
1303/F 2ml micro test tubes in PP, graduated, with cap, DNase & RNase free
1303/SCL 2ml micro test tubes in PP, graduated, with SecureLock cap, DNase RNase DNA & pyrogen free
1303/SG 2ml micro test tubes in PP, graduated, with cap, sterile
1304/P 0.5ml conical micro test tubes in PP with not inserted screw cap and o-ring
1304/PS 0.5ml conical micro test tubes without screw cap, without rim
1304/S 0.5 ml conical micro test tubes, PP, graduated, without cap, DNasi & RNasi free
1304/SG 0.5ml conical micro test tubes with screw cap and o-ring, in PP, sterile
1305/P 0.5ml conical micro test tubes in PP, screw cap not inserted with o-ring, selfstanding base
1305/S 0.5 ml conical micro test tubes, PP, self-standing base, without cap, DNasi&RNasi free

1305/SG 0.5ml conical micro test tubes with screw cap o-ring and base in PP, sterile
1311.01 Microtest tubes cap disks in PP, light blue colour
1311.02 Microtest tubes cap disks in PP, white colour
1311.03 Microtest tubes cap disks in PP, pink colour
1311.04 Microtest tubes cap disks in PP, yellow colour
1311.05 Microtest tubes cap disks in PP, red colour
1311.06 Microtest tubes cap disks in PP, green colour
1314/P 0.5ml conical micro test tubes in PP with not inserted screw cap, without o-ring
1314/SG 0.5ml conical micro test tubes with screw cap, without o-ring in PP, sterile
1315/P 0.5ml conical micro test tubes in PP, screw cap not inserted without o-ring, base
1315/SG 0.5ml conical micro test tubes screw cap and base, PP, without o-ring, sterile
1375/E CYLINDRICAL TT 13X75 IN PS WITH LABEL
1375/MO 5ml cylindrical test tubes in PP, not graduated, without rim, Ø13 x 75 mm
1375/MO/T 5ml cylindrical test tubes in PP, not graduated, cap without rim, Ø13x75 mm
1375/MO/TE 5ml cylindrical test tubes in PP, not graduated, cap and label, no rim
1375/S CYLIND. TT 13X75 IN PS WITHOUT RIM - IN 1 BAG OF 4000 PIECES
1375/T 5 ml cylindrical test tubes, in PS, Ø13 x 75 mm, without rim, with cap
1375/T/E 5ml cylindrical test tubes in PS, Ø13x75 mm, label, without rim, with cap
1375/T/SG 5ML CYLINDRICAL TT W/OUT RIM W/CAP - STERILE
1402/B Tip Biohit m-LINE/PROLINE PLUS type, vol. 0.1-10ul, neutral, bags of 1,000 pieces
1402/B/SG Tip Biohit m-LINE/PROLINE PLUS type, vol. 0.1-10ul, neutral, sterile
1402/B/SG/CS Biohit tips, neutral colour, 0.1-10 ul, individually wrapped
1402/E Tips Eppendorf type in PP, vol. 2-20 ul, neutral colour, packing 1,000pcs
1402/E/SG Tips Eppendorf type in PP, vol. 2-20 ul, neutral colour, sterile in bags of 5pcs
1402/E/SG/CS Tips Eppendorf type in PP, neutral colour, 2-20ul, sterile ind. wrapped
1402/G Tips Gilson type in PP, vol. 2-200 ul, yellow colour, packing 1,000pcs
1402/G/SG Tips Gilson type in PP, vol. 2-200 ul, yellow colour, sterile in bags of 5pcs
1402/G/SG/CS Tips Gilson type in PP, vol. 2-200 ul, yellow colour, sterile, ind. wrapped
1402/MG Tips Gilson type in PP, 0.1-10ul lengthened, neutral, bags of 1,000pcs
1402/MG/SG Tips Gilson type in PP, 0.1-10ul lengthened, neutral, sterile in bags of 5pcs
1402/MG/SG/CS Tips Gilson type in PP, 0.1-10ul lengthened, neutral, sterile
1403/SCL 5ml micro test tubes in PP, graduated, with SecureLock cap, DNase RNase DNA & pyrogen free
1405/P 1.5ml conical micro test tubes in PP with not inserted screw cap and o-ring
1405/PS 1.5ml conical micro test tubes without screw cap, without rim
1405/S 1.5 ml conical micro test tubes, PP, graduated, without cap, DNasi & RNasi free
1405/SG 1.5ml conical micro test tubes with screw cap and o-ring, in PP, sterile
1405/SG/20 1.5ml conical micro test tubes with screw cap and o-ring, in PP, sterile
1406/P 1.5ml conical micro test tubes in PP with not inserted screw cap, base and o-ring
1406/S 1.5 ml conical micro test tubes, PP, self-standing base, without cap, DNasi&RNasi free
1406/SG 1.5ml conical micro test tubes with screw cap o-ring, base, PP not serigraphed, sterile
141/AN Petri dishes Ø 100 mm, in PS, without triple vents, aseptic, bags of 10 pieces
141/CS PETRI DISHES IN PS, DIAM. 100MM, STERIL. IND. WRAPPED
141/N Petri dishes Ø 100 mm, without triple vents, in PS, not sterile
141/SG Petri dishes Ø 100 mm, in PS, without triple vents, sterile, bags of 10 pieces
141/SG/AN Petri dishes Ø 100 mm, in PS, without triple vents, sterile, bags of 10 pieces



14100/1000 Protective biopsy pads in polyester foam, 26x30 mm, bags of 1,000 pieces
14120/B 20ml surgical containers in PP yellow screw cap, graduated, biohazard label
14121/B 40ml surgical containers in PP yellow screw cap, graduated, biohazard label
14122/B 60ml surgical containers in PP yellow screw cap, graduated, biohazard label
14122/SG 60ml surgical containers in PP yellow screw cap, graduated sterile, mm
14122/SG/CS 60ml surgical containers in PP yellow screw cap, graduated, sterile
14123/B 90ml surgical containers in PP yellow screw cap, graduated, biohazard label
14123/SG 90 ml surgical containers in PP, yellow screw cap graduated sterile
14124/B 120 ml surgical containers in PP, yellow screw cap graduated biohazard label
14124/SG 120 ml surgical containers in PP, yellow screw cap graduated sterile
14124/SG/CS Surgical specimen containers 120ml in PP, yellow screw cap, sterile
14134/SG/CS 100ml containers for biopsy in PS, with pressure cap in PE, sterile
14142/B Transparent containers in PP, for surgical specimens, 500ml, Biohazard label
14142/SG Surgical specimen containers, in PP, with pressure cap, 500ml, sterile
14142/SG/CS Surgical specimen containers, in PP, with pressure cap, 500ml, sterile
14143/B Transparent containers in PP, for surgical specimens, 1000ml Biohazard label
14143/SG/CS Surgical specimen containers, in PP, with pressure cap, 1000ml, sterile
14144/B Transparent containers in PP, for surgical specimens, 1500ml Biohazard label
14144/SG/CS Surgical specimen containers, in PP, with pressure cap, 1500ml, sterile
14149/B 160 ml surgical containers in PP, yellow screw cap graduated, Biohazard label
1415/P 1.5ml conical micro test tubes in PP with not inserted screw cap, without o-ring
1415/SG 1.5ml conical micro test tubes with screw cap, without o-ring in PP, sterile
14150/B Transparent containers in PP, for surgical specimens, 150ml, Biohazard label
14150/SG/CS Surgical specimen containers, in PP, with pressure cap, 150ml, sterile
14151/B 250 ml surgical containers in PP, yellow screw cap graduated, biohazard label
14151/SG 250 ml surgical containers in PP, green screw cap, graduated sterile
14152/B 500 ml surgical containers in PP, yellow screw cap graduated, biohazard label
14152/SG 500 ml surgical containers in PP, green screw cap, graduated sterile
14152/SG/2CS 500ml surgical containers, PP, screw cap, sterile in double bags
14152/SG/CS 500 ml surgical containers in PP, green screw cap, graduated sterile
14153/B 1000ml surgical containers in PP, yellow screw cap graduated, biohazard label
14153/SG 1000 ml surgical containers in PP, green screw cap, graduated sterile
14153/SG/2CS 1000ml surgical containers, PP, yellow screw cap, sterile in double bags
14153/SG/CS 1000 ml surgical containers in PP, green screw cap, graduated sterile
14155/B Transparent containers in PP, for surgical specimens, 250ml, Biohazard label
14155/SG Transparent containers PP, surgical specimens, 250ml, Ø95x61,5mm, sterile
14155/SG/CS Transparent containers in PP, for surgical specimens, 250ml, sterile
1416/P 1.5ml conical micro test tubes in PP, not inserted screw cap and base, no o-ring
1416/SG 1.5ml conical micro test tubes screw cap and base, in PP, no o-ring, sterile
14160/S Transparent containers in PP, for surgical specimens, 500ml
14160/SG Transparent containers in PE, for surgical specimens, 500ml, sterile

14160/SG/CS Transparent containers in PE, for surgical specimens, 500ml, sterile
14161/SG Cylindrical jars with cap, 70 ml, in HDPE, inner cap, sterile
14161/SG/CS Cylindrical jars with cap, 70 ml, in HDPE, inner cap, sterile
14162/SG Cylindrical jars with cap, 120 ml, in HDPE, inner cap, sterile
14162/SG/CS Cylindrical jars with cap, 120 ml, in HDPE, inner cap, sterile
14163/SG Cylindrical jars 250 ml, HDPE, with screw cap and inner cap, sterile
14163/SG/CS Cylindrical jar with assembled inner cap, screw cap, 250ml, HDPE, sterile
14164/SG Cylindrical jars 500 ml, HDPE, with screw cap and inner cap, sterile
14164/SG/CS Cylindrical jars 500ml with inner & screw cap assembled, HDPE, sterile
14165/SG Cylindrical jars 1000ml, HDPE, with screw cap and inner cap, sterile
14165/SG/CS Cylindrical jars HDPE 1000 ml, with screw cap and inner cap, steril
14166/SG Cylindrical jars HDPE 2000 ml, with screw cap and inner cap, sterile
14166/SG/CS Cylindrical jars HDPE 2000 ml, with screw cap and inner cap, sterile
14167/SG Cylindrical jars HDPE 750 ml, with screw cap and inner cap, sterile
14167/SG/CS Cylindrical jars HDPE 750 ml, with screw cap and inner cap, sterile
14168/SG Cylindrical jars HDPE 1500 ml, with screw cap and inner cap, sterile
14168/SG/CS Cylindrical jars HDPE 1500 ml, with screw cap and inner cap, sterile
14170/S Transparent containers in PP, for surgical specimens, 1000ml
14170/SG/CS Transparent containers in PE, for surgical specimens, 1000ml, sterile
14175/B Transparent containers in PP, for surgical specimens, 2000ml Biohazard label
14175/SG/CS Transparent containers in PE, for surgical specimens, 2000ml, sterile
14175/T Containers in PE for surgical specimens, 2000ml, inserted pressure cap
14180/B Transparent containers in PP, for surgical specimens, 3000ml Biohazard label
14180/S Transparent containers PP, for surgical specimens, 3000ml handle, serigraphed
14180/SG/CS Transparent containers in PE, for surgical specimens, 3000ml, sterile
14185/B Transparent containers in PP, for surgical specimens, 5000ml Biohazard label
14185/SG/CS Transparent containers in PE, for surgical specimens, 5000ml, sterile
14190/B Big containers in PP, for surgical specimens, 5,500 ml, with biohazard label
14190/SG/CS Big containers in PP, for surgical specimens, 5500ml, sterile
14192/B Big containers in PP, for surgical specimens, 2,500 ml, with biohazard label
14192/SG/CS Big containers in PP, for surgical specimens, 2500ml, sterile
14195/B Big containers in PP, for surgical specimens, 11,000 ml, with biohazard label
14195/SG/CS Big containers in PP, for surgical specimens, 11000ml, sterile
1501/SG Pasteur pipettes 1ml in PE, lenght 150 mm, graduated, sterile in bags of 5 pcs
1501/SG/10 Pasteur pipettes 1ml in PE, lenght 150 mm, graduated, sterile
1501/SG/100 Pasteur pipettes 1ml in PE, lenght 150 mm, graduated, sterile in bags
1501/SG/CS Pasteur pipettes 1ml in PE, lenght 150 mm, graduated, sterile
1502/20 Disposable Pasteur Pipettes 3ml., not sterile
1502/SG Pasteur pipettes 3ml in PE, lenght 150 mm, graduated, sterile in bags of 5pcs
1502/SG/10 Pasteur pipettes 3ml in PE, lenght 150 mm, graduated, sterile
1502/SG/CS Pasteur pipettes 3ml in PE, lenght 150 mm, graduated, sterile

1502/SG/CS/1000 Pasteur pipettes 3ml in PE, 150mm, graduated, sterile ind.
1503/N Capillary Disposable Pasteur Pipettes, not sterile
1503/SG Capillary Pasteur pipettes, length 150 mm, in PE, sterile in bags of 5 pcs
1503/SG/10 Capillary Disposable Pasteur Pipettes, sterile, in 10 pcs bags
1503/SG/10/N Capillary Disposable Pasteur Pipettes, sterile, in 10 pcs bags
1503/SG/CS Capillary Pasteur pipettes, length 150 mm, in PE, sterile
1503/SG/CS/N Capillary Disposable Pasteur Pipettes, sterile, individually wrapped
1506/P 2ml conical micro test tubes in PP with not inserted screw cap and with o-ring
1506/PS 2ml conical micro test tubes without screw cap, without rim
1506/S 2 ml conical micro test tubes, PP, graduated, without cap, DNasi & RNasi free
1506/SG 2ml conical micro test tubes with screw cap and o-ring in PP, sterile
1507/P 2ml conical micro test tubes in PP with not inserted screw cap, o-ring and base
1507/S 2 ml conical micro test tubes, PP, self-standing base, without cap, DNase&RNase free
1507/SG 2ml conical micro test tubes with screw cap o-ring and base in PP, sterile
151/AN Petri dishes Ø 100 mm, in PS, with triple vents, aseptic, bags of 10 pieces
151/N Petri dishes Ø 100 mm, with triple vents, in PS, not sterile
151/SG Petri dishes Ø 100 mm, in PS, with triple vents, sterile R, bags of 10 pieces
151/SG/AN Petri dishes Ø 100 mm, in PS, with triple vents, sterile R, bags of 10 pieces
1511/SG Pasteur Pipettes "FINE TIPS" 5 ml, in PE, sterile in bags of 5 pieces
1511/SG/CS Pasteur Pipettes "FINE TIPS" 5 ml, in PE, sterile individually wrapped
1515/SG Narrow stem Pasteur pipette in PE, 4 ml, length 83 mm, sterile in bags of 5 pcs
1515/SG/CS Narrow stem Pasteur pipette in PE, 4 ml, length 83 mm, sterile
1516/P 2ml conical micro test tubes in PP with not inserted screw cap no o-ring, base
1516/SG 2ml conical micro test tubes with screw cap, without o-ring in PP, sterile
1517/P 2ml conical micro test tubes in PP with not inserted screw cap and base, without o-ring
1517/SG 2ml conical micro test tubes with screw cap and base in PP, without o-ring, sterile
1518/SG Paddle Pasteur pipette in PE, 0.8 ml, length 125 mm, sterile in bags of 5 pcs
1518/SG/CS Paddle Pasteur pipette in PE, 0.8 ml, length 125 mm, sterile
1519/SG Paddle Pasteur pipette in PE, 1 ml, length 130 mm, sterile in bags of 5 pcs
1519/SG/CS Paddle Pasteur pipette in PE, 1 ml, length 130 mm, sterile
1523/SG Pasteur pipettes 1.5 ml, length 230 mm, in PE, sterile in bags of 5 pcs
1523/SG/20 Pasteur pipettes 1.5 ml, length 230 mm, in PE, sterile in bags of 20 pieces
1523/SG/CS Pasteur pipettes 1.5 ml, length 230 mm, in PE, sterile individually wrapped
15331/TE/R 10ml conical urine test tubes for instruments, in PS, with cap, label, in rack
15361/MO 10ml cylindrical test tubes in PP, screen-printed graduation, with screw cap
15361/SG 10ml cylindrical test tubes in PS, screen-printed graduation, screw cap, sterile
15361/SG/CS 10ml cylindrical test tubes PS screen-printed graduation, cap, sterile
15362/SG 15ml cylindrical test tubes PS, screen-printed graduation, screw cap, sterile
15362/SG/CS 15ml cylindrical test tubes PS, screen-printed graduation, screw cap, sterile
155/N Petri dishes CONTACT type Ø60, PS, with counting area, with triple vents
1560/SG 30 ml sputum containers in PP, with screw cap, neutral color, sterile
1602/SG REFILLS FOR UNIVERSAL BOXES W/96 YELLOW TIPS, EPPEND. TYPE 5-200UL. STER. BAGS W/5 REFILLS
161/N Petri dishes Ø 60 mm, with triple vents, in PS, not sterile

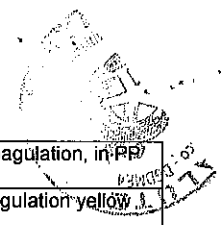
1625/MO 4 ml cylindrical test tubes flat bottom, in PP, graduated, with rim, Ø16 x 50 mm
1630/E/SG 250ml containers, in PS, aluminium screw cap with gasket, with label, sterile
1630/E/TS 250ml containers, in PS, aluminium screw cap with gasket, with label, sterile
1630/SG 250ml containers Ø58x119mm, in PS, aluminium screw cap with gasket, sterile
1630/TS 250ml containers Ø58x119mm, in PS, aluminium screw cap with gasket, sterile
1650.01 20ml cylindrical test tubes in PS blue colour, not graduated, without rim
1650.02 20ml cylindrical test tubes in PS red colour, not graduated, without rim
1650.03 20ml cylindrical test tubes in PS green colour, not graduated without rim
1675/MO 8ml cylindrical test tubes in PP, with rim, graduated, Ø16 x 75 mm.
1675MO+1147+CUP Kit test tube Ø16x75 in PP + white stopper safety grip
181/AN Petri dishes Ø 120 mm, without triple vents, in PS, aseptiche
181/N Petri dishes Ø 120 mm, without triple vents, in PS, not sterile
181/SG Petri dishes Ø 120 mm, without triple vents, in PS, sterile R
1902/SG REFILLS UNIVERSAL BOXES W/96 TIPS GILSON P2 AND P10 01 -10UL. STER
2000/1 Test tubes with K2 EDTA for 1ml of blood, paediatric use, light green cap
2000/1/L Test tubes with K2 EDTA for 1ml of blood, paediatric use, lavender cap
2000/1/V Test tubes with K2 EDTA for 1ml of blood, paediatric use
2000/L Test tubes in PP with K2 EDTA, for 2.5ml of blood, Ø12x56 mm, with lavender cap
2003/L Test tubes in PP with K2 EDTA, for 2.5ml of blood, Ø12x86 mm, with lavender cap
2004/L Test tubes in PP with K2 EDTA, for 5ml of blood, Ø12 x 86 mm, with lavender cap
2005/L Test tubes in PP with K2 EDTA, for 2.5ml of blood, Ø13x75 mm, with lavender cap
2008/L Test tubes in PP with K2 EDTA, for 4ml of blood, Ø13x75 mm, with lavender cap
2030/E 30ml specimen containers, in PP, with inserted screw cap Ø35 x 38 mm, label
2030/E/SG 30ml specimen containers, PP, with inserted red screw cap, label, sterile
2030/P 30ml specimen containers in PP, with not inserted screw cap light blue colour
2030/S 30ml specimen containers, in PP, Ø35 x 38 mm, with screw cap not inserted
2030/S/R 30ml specimen containers, in PP, Ø35 x 38 mm, with red screw cap aside
2030/SG 30ml specimen containers, in PP, with inserted screw cap Ø35x38 mm, sterile
2030/TS 30ml specimen containers, in PP, with inserted screw cap Ø35x38 mm, sterile
20351/E/SG 50ml sterile conical test tube screw cap, grad. PP, self-standing base, label
20351/P 50ml conical test tubes in PP, screw cap not assemb, graduated, Ø30x115mm
20351/R 50ml conical test tubes PP, red screw cap, graduated, self-standing base
20351/S 50ml conical test tubes in PP, without cap, Ø30x115mm, graduated
20351/SG 50ml conical test tubes PP, screw cap, graduated self-standing base, sterile
20351/SG/50/B CON.TT PP 30X115-50ML BLUE CAP W/SELFSTANDING BASE
20351/SG/CS 50ml conical test tubes in PP, screw cap, graduated with base, sterile
2040/B 60ml specimen containers, in PS, with white inserted screw cap, Ø35 x 70 mm
2040/E 60ml specimen containers, in PS, with inserted screw cap, with label
2040/E/R 60ml specimen containers, in PS, inserted red screw cap, with label
2040/E/SG 60ml specimen containers, PS, with screw cap and label, sterile ind wrapped
2040/E/TS 60ml specimen containers, in PS, with inserted screw cap, label, sterile
2040/EB/TS 60ml specimen containers, PS, inserted white screw cap, label, sterile
2040/EST/SG 60ml specimen containers, PS, with screw cap and label, sterile

2040/P 60ml specimen container in PS, Ø35 x 70 mm, with screw cap not assembled
2040/P/E 60ml specimen container in PS, Ø 35 x 70 mm, label, screw cap not assembled
2040/R 60ml specimen containers, in PS, with red inserted screw cap, Ø35 x 70 mm
2040/SG 60ml specimen containers, in PS, with screw cap, Ø35x70 mm, sterile
2040/TB/SG 60ml specimen containers, in PS, with white screw cap, Ø35x70mm, sterile
2040/TS 60ml specimen containers, in PS, with inserted screw cap Ø35 x 70 mm, sterile
2040/TS/70 SPECIMEN CONT. 60ML 35X70MM PS STERILE - BAGS OF 70 PCS
2042/E SPECIMEN CONTAINERS 60 ML IN PS SCREW CAP W/SPOON AND LABEL
2042/E/TS SPECIMEN CONTAINERS IN PS 60 ML, SCREW CAP W/SPOON LABELLED, DIM.35X70 MM STERILE
2042/SG 60ml faeces containers in PS, with screw cap and spoon, Ø35x70 mm, sterile ind wrapped
2050/100 60ml specimen containers, in PP, with inserted screw cap Ø35 x 70 mm, bags of 100 pcs
2050/B 60ml specimen containers, in blue PP, with inserted screw cap, Ø35 x 70 mm
2050/B/SG 60ml specimen containers, in blue PP, with screw cap, Ø35x70mm, sterile ind. wrapped
2050/C CAPS FOR SPECIMEN CONTAINERS YELLOW SCREW CAP, FOR ITEM CODE 2050
2050/CS 60ml PP graduated specimen container , inserted screw cap Ø35x70mm, individually wrapped
2050/DDK 60ml specimen containers in PP with red inserted screw cap with DDK label, Ø35x70 mm
2050/E 60ml specimen containers, in PP, with inserted screw cap Ø35 x 70 mm, with label
2050/E/CS 60ml PP graduated specimen container , inserted screw cap 35x70mm, ind. wrapped, label
2050/E/S 60ml PP graduated specimen container , not inserted screw cap 35x70mm, ind. wrapped, label
2050/E/SG 60ml specimen containers, PP, with screw cap and label. Ø35x70mm, sterile ind wrapped
2050/E/TS 60ml specimen containers, PP, with screw cap and label, Ø35x70 mm, sterile
2050/P 60ml specimen container in PP, Ø35 x 70 mm, graduated, with not inserted screw cap
2050/P/E 60ml specimen container in PP, graduated, Ø35x70 mm, label, with not assembled screw cap
2050/PA/20/SG 60ml specimen containers, PP, grad, lightblue screw cap not assembled, sterile bags 20pcs
2050/PB/20/SG 60ml specimen containers, PP, graduated, blue screw cap not assembled, sterile bags 20 pcs
2050/PR 60ml specimen containers, in PP, Ø35 x 70 mm. with red screw cap not inserted
2050/PR/20/SG 60ml specimen containers, PP, graduated, red screw cap not assembled, sterile bags 20 pcs
2050/R 60ml specimen containers, in PP, with inserted screw cap Ø35 x 70 mm
2050/R/WHITE 60ml containers in WHITE PP, inserted screw cap red colour, Ø35 x 70 mm
2050/S 60ml specimen containers, in PP, without cap Ø35 x 70 mm
2050/SG 60ml specimen containers, in PP, with screw cap, Ø35x70 mm, sterile ind wrapped
2050/SG/C25 SPECIMEN CONTAINERS 60 ML. IN PP STERILIZED, PACK OF 25 PCS.
2050/SG/S 60ml specimen containers, in PP, with screw cap, Ø35x70 mm, sterile
2050/T 60ml specimen containers, in PP, with screw cap Ø35 x 70 mm
2050/TA/20/SG 60ml specimen containers, PP, lightblue screw cap assembled, graduated, sterile bags 20pcs
2050/TA/SG/20 60ml specimen containers, in PP, light blue screw cap, sterile in bags of 20 pcs
2050/TAPPO/B Blue screw cap for 60ml specimen containers
2050/TB/20/SG 60ml specimen containers, PP, blue screw cap assembled, graduated, sterile bags 20pcs
2050/TR/20/SG 60ml specimen containers, PP, red screw cap assembled, graduated, sterile bags 20pcs
2050/TS 60ml specimen containers, in PP, with screw cap, Ø35 x 70 mm, sterile
2050/WHITE/TB 60ml PP WHITE specimen containers, BLUE screw cap inserted, Ø35 x 70 mm

2050P 60ml specimen containers, in PP, with not inserted screw cap, Ø35 x 70 mm
2052/10 60ml faeces containers in PP, with screw cap and spoon, Ø35 x 70 mm, bags of 10pcs
2052/100 60ml faeces containers in PP, with screw cap and spoon, Ø35 x 70 mm, bags of 100 pcs
2052/CS 60ml faeces containers in PP, with screw cap and spoon, Ø35x70mm, individually wrapped
2052/E 60ml faeces containers in PP, with screw cap and spoon, Ø35 x 70 mm, with label
2052/E/CS 60 ml faeces container, PP, cap, spoon, label, Ø35x70 mm, ind. wrapped
2052/E/SG 60ml faeces containers in PP, with screw cap, spoon, label Ø35x70mm, sterile ind wrapped
2052/E/TS STER.SPECIMEN CONTAINER 60 ML 35x70 IN PP W/SCREW CAP W/LABEL BAGS OF 100 PCS
2052/R 60ml faeces containers in PP, with red screw cap inserted and spoon. Ø35 x 70 mm
2052/SG 60ml faeces containers in PP, with screw cap and spoon, Ø35x70 mm, sterile ind wrapped
2052/SG/25 60ml faeces containers in PP, with screw cap and spoon, Ø35x70 mm, sterile bags 25 pcs
2052/SG/C10 STOOL CONTAINERS 60 ML. SCREW CAP W/SPOON IN PP STERILIZED, PACK OF 10 PCS.
2052/SG/C100 STOOL CONTAINER 60 ML. SCREW CAP W/SPOON IN PP STERILIZED-PACK OF 100 PCS.
2052/T5 60ml faeces containers in PP.
2052/TS 60ml faeces containers in PP, with screw cap and spoon, Ø35x70 mm, sterile
2062/10 60ml faeces containers in PP, with screw cap and spoon, Ø35 x 70 mm, bags of 10 pieces
2062/E 60ml faeces containers in PP, with screw cap and spoon, with label, Ø35 x 70 mm
2062/E/SG 60ml faeces containers in PP, with screw cap and spoon, Ø35x70mm, sterili ind. wrapped
2062/P 60ml faeces containers in PP, with separated screw cap with spoon, graduate, Ø35x70mm
2062/R 60ml faeces containers in PP, w/ red screw cap and spoon graduated
2062/SG 60ml faeces containers in PP, with screw cap and spoon, Ø35x70mm, sterili ind. wrapped
2072/E 60ml faeces containers in PS, with screw cap and spoon, with label, Ø 35x70 mm
2072/E/SG 60ml faeces containers in PS, screw cap and spoon, label, Ø35x70mm, sterile ind. wrapped
2072/P 60ml faeces containers in PS, with separated screw cap with spoon, graduate, Ø35x70mm
2072/SG 60ml faeces containers in PS, with screw cap and spoon, Ø35x70mm, sterile ind. wrapped
2100/1 Test tubes with K3 EDTA for 1ml of blood, paediatric use, dark green cap, Ø12 x 56 mm
2100/1/V Test tubes with K3 EDTA for 1ml of blood, paediatric use, violet cap, Ø12 x 56 mm
2100/1/V Test tubes with K3 EDTA for 1ml of blood, paediatric use, violet cap, Ø12 x 56 mm
2100/TM Test tubes in PP with K3 EDTA for 2,5ml of blood 15x56mm
2100/V Test tubes in PP with K3 EDTA, for 2.5ml of blood, Ø12x56 mm, with purple cap
2101/V Test tubes in PP with K3 EDTA, for 2.5ml of blood, Ø16x60 mm, with violet cap
2102/V Test tubes in PP with K3 EDTA, for 5ml of blood, Ø16 x 60 mm, with violet cap
2103/V Test tubes in PP with K3 EDTA, for 2.5ml of blood, Ø12x86 mm, with violet cap
2104/V Test tubes in PP with K3 EDTA, for 5ml of blood, Ø12 x 86 mm, with violet cap
2105/TM Test tubes in PP with K3 EDTA, for 2.5ml of blood, Ø13x75 mm, with purple colour cap
2105/V Test tubes in PP with K3 EDTA, for 2.5ml of blood, Ø13x75 mm, with violet cap
2105/VIOLA Test tubes in PP with K3 EDTA, for 2.5ml of blood, Ø13x75 mm, violet colour cap
2107/V Test tubes in PP with K3 EDTA, for 10ml of blood, Ø16x100 mm, with violet cap
2108/5 test tube in PP with K3 EDTA for 5 ml of blood 13x75
2108/TM Test tubes in PP with K3 EDTA, for 4ml of blood, Ø13x75 mm, with mauve cap
2108/V Test tubes in PP with K3 EDTA, for 4ml of blood, Ø13x75 mm, with violet cap
2108/VIOLA Test tubes in PP with K3 EDTA, for 4ml of blood, Ø13x75 mm, cap violet colour

2120/00 150ml urine containers in PP, with screw cap not inserted, graduated, Ø58 x 72 mm
2120/50 150ml urine containers in PP, screw cap not inserted, grad., Ø58x72 mm, bags of 50 pcs
2120/B 150ml urine containers in PP, with white screw cap not inserted, graduated, Ø58x72 mm
2120/B/SG 150ml urine containers in PP, white screw cap, graduated, Ø58x72mm, sterile ind. wrapped
2120/CS 150ml urine containers in PP, with screw cap, graduated, Ø58x72, aseptic ind. wrapped
2120/CS/M 150ml urine containers in PP, screw cap, graduated, aseptic, Ø58x72 ind. wrapped box/400pcs
2120/CS/MI 120ml urine containers in PP, with screw cap, graduated, Ø58x72, aseptic ind. wrapped
2120/E 150ml urine containers in PP, with screw cap not inserted, graduated, Ø58 x 72 mm, label
2120/E/CS 150ml urine containers in PP, screw cap, graduated, label, Ø58x72mm, individually wrapped
2120/E/SG 150ml urine containers in PP, screw cap, graduated, label Ø58x72mm, sterile ind. wrapped
2120/E/TS STER. URINE CONTAINERS VOL 150 ML IN PP W/SCREW CAP W/LABEL
2120/E/TSB 150 ml urine containers in PP, screw cap, sterile, label boric acid
2120/ES URINE CONTAINERS 150 ML PP SCREW CAP W/LABEL WRITING SURFACE NOT INSERTED
2120/ES/SG URINE CONTAINER 150 ML PP SCREW AP W/LABEL NOT INSERTED WRITING SURFACE NOT INSERTED
2120/G 150ml urine containers in PP, yellow screw cap not inserted, graduated, Ø58 x 72 mm
2120/G/SG Graduated urine containers 150ml, PP, yellow screw cap, ind. wrapped
2120/H/SG 150 ml urine containers in PP, screw cap with groove, gradua. sterile individually wrapped
2120/N 150ml urine containers in PP, with neutral screw cap not inserted, graduated, Ø58x72 mm
2120/R 150ml urine containers in PP, with red screw cap not inserted, graduated, Ø58x72 mm
2120/S 150ml urine containers in PP, without cap, graduated, Ø58 x 72 mm
2120/SCH 150ml urine containers in PP, with screw cap not inserted, graduated, Ø58 x 72 mm
2120/SG 150ml urine containers in PP, with screw cap, graduated, Ø58x72 mm, sterile ind wrapped
2120/SG/10 Graduated urine containers 150ml, PP, screw cap, ind. wrapped
2120/SG/25 Urine container 150ml in PP, screw cap, graduated, sterile ind. wrapped in bags of 25pcs
2120/SG/C10 URINE CONTAINERS GRADUATED 150 ML. GRADUATED SCREW CAP IN PP, PACK OF 10 PCS.STERILIZED
2120/SG/C30 URINE CONTAINERS GRADUATED 150 ML. GRADUATED, SCREW CAP I N PP,STERILIZED-PACK OF 30 PCS
2120/SG/MI 120ml urine containers in PP, with screw cap, graduated, Ø58x72 mm, sterile ind wrapped
2120/SG/SCH 150ml urine containers in PP, with screw cap, graduated, Ø58x72 mm, sterile ind wrapped
2120/SG+1118 Graduated urine containers 150ml, PP, screw cap, ind. Wrapped + labels 1118 not applied
2120/T 150ml urine containers in PP, with inserted screw cap, graduated, Ø58 x 72 mm
2120/T/100 150ml urine containers in PP, inserted screw cap, Ø58x72 mm graduated, bags of 100 pcs
2120/T/250 150ml urine containers in PP, inserted screw cap, Ø58x72 mm graduated
2120/T/N 150ml urine containers in PP, with inserted neutral screw cap, graduated, Ø58 x 72 mm
2120/T5 150ml urine containers in PP, inserted screw cap, graduated, Ø58 x 72 mm, bags of 5pcs
2120/T50 URINE CONTAINERS VOL.150 ML-IN PP-W/SCREW CAP ON- BAGS OF 50 PCS
2120/TA/SG 150ml urine containers PP with light blue screw cap, graduat. Ø58x72 mm, sterile ind wrapped
2120/TB 150ml urine containers in PP, with inserted white screw cap, graduated, Ø58 x 72 mm
2120/TB 150ml urine containers in PP, with inserted white screw cap, graduated, Ø58 x 72 mm
2120/TE 150ml urine containers PP with inserted light blue screw cap, graduated, with label
2120/TN 150ml urine containers in PP, with inserted neutral screw cap, graduated, Ø58 x 72 mm

2120/TR 150ml urine containers in PP, with inserted red screw cap, graduated, Ø58 x 72 mm
2120/TS 150ml urine containers in PP, with screw cap, graduated, Ø58 x 72 mm, sterile
2120/TSG 150ml urine containers in PP, screw cap YELLOW colour, sterile individually wrapped
2120/TV 150ml urine containers PP with green screw cap not inserted, graduated, Ø58 x 72 mm
2120/V 150ml urine containers PP with green screw cap not inserted, graduated, Ø58 x 72 mm
2120/V/500 150ml urine containers in PP, green screw cap not inserted, graduated, Ø58 x 72 mm
2200/G KF+NA2 EDTA IN TT 12X56 FLAT BOTTOM YELLOW CAP FOR 2,5 ML
2200/G KF+NA2 EDTA IN TT 12X56 FLAT BOTTOM YELLOW CAP FOR 2,5 ML
2201/G KF+NA2 EDTA 16X60 FLAT BOTTOM TT - YELLOW - FOR 2,5ML OF BLOOD
2202/G FLOURIDE OXALATE IN TT 16X60 FLAT BOTTOM-YELLOW CAP - 5 M L OF BLOOD
2203/G Test tubes with KF+NA2 EDTA, in PP, for 2.5 of blood, with grey cap, Ø12 x 86 mm
2204/G Test tubes with KF+NA2 EDTA, in PP, for 5 of blood, with grey cap, Ø12 x 86 mm
2205/G Test tubes with KF+NA2 EDTA, in PP, for 2.5 of blood, with grey cap, Ø13 x 75 mm
2205/TG Test tubes with KF+NA2 EDTA, in PP, for 2.5 of blood, with
2208/G Test tubes with KF+NA2 EDTA, in PP, for 4 ml of blood, with grey cap, Ø13 x 75 mm
221/N Petri dishes Ø 140 mm, with triple vents, in PS, not sterile
2220/250 200ml urine containers in PP, with screw cap, graduated, Ø64 x 93 mm, box of 250 pieces
2220/CS 200ml urine containers in PP, with screw cap, graduated, Ø64x93mm, individually wrapped
2220/E 200 ml urine containers in PP, screw cap, with label, graduated
2220/E/CS 200ml urine containers in PP, screw cap, graduated, label, Ø64x93 mm, ind. wrapped
2220/E/SG 200ml urine containers in PP, screw cap, graduated, label Ø64x93 mm, sterile ind wrapped
2220/E/TS 200ml urine containers in PP, inserted screw cap, graduated with label, Ø64x93mm, sterile
2220/E/TSB Graduated urine containers 200ml, PP, screw cap, ind. Wrapped, with boric acid
2220/R 200ml urine containers in PP screw red cap. graduated, dimensions Ø64 x 93 mm
2220/S 200ml urine containers in PP without screw cap. graduated, dimensions Ø64 x 93 mm
2220/SG 200ml urine containers in PP, with screw cap, graduated, Ø64x93 mm, sterile ind wrapped
2220/T 200ml urine containers in PP, with inserted screw cap, graduated, Ø64 x 93 mm
2220/TE 200ml urine containers in PP, with inserted screw cap, label, graduated, Ø64 x 93 mm
2220/TS 200ml urine containers in PP, with inserted screw cap, graduated, Ø64x93 mm, sterile
2250/E/SG 40ml specimen containers in PP with screw cap and label. sterile individually wrapped
2250/SG 40ml specimen containers in PP with screw cap, sterile individually wrapped
231/N Petri dishes Ø150, PS, with triple vents
2400/I Test tube with Lithium Heparin for 1ml of blood, paediatric use, blue cap, Ø12 x 56 mm
2400/TV LITHIUM HEPARIN IN 12X56 FLAT BOTTOM TT FOR 2,5ML OF BLOOD
2404/TV LITHIUM HEPARIN - GREEN CAP IN CYL.T.T. FOR 5 ML OF BLOOD
2404/VERDE LITHIUM HEPARIN - GREEN CAP IN CYL.T.T. FOR 5 ML OF BLOOD
2405/TV Test tube with Lithium Heparin in PP, for 2.5 of blood,
2408/VERDE LITHIUM HEPARIN IN 13X75 CYL.TT FOR 5 ML OF BLOOD- GREEN CAP
2420/E/SG 150ml urine containers in PP, with screw cap and plug, Ø58x72mm, with label, sterile
2420/R 150ml urine containers in PP, with red screw cap and plug, graduated, Ø58 x 72 mm
2420/SG 150ml urine containers in PP, screw cap and plug, graduated, Ø58x72mm, sterile ind wrapped
2420/TR 150ml urine containers in PP, with inserted red screw cap and plug, graduated, Ø58x72mm

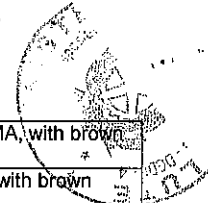


2440/CS 60ml specimen containers, in PS, with inserted screw cap Ø38 x 65 mm, individually wrapped
2440/E 60ml specimen containers, in PS, with inserted screw cap Ø38 x 65 mm, with label
2440/E/CS 60ml specimen containers, in PS with screw cap and label Ø38x65mm, label, ind. wrapped
2440/E/SG 60ml specimen containers, PS, with screw cap and label Ø38x65 mm, sterile ind wrapped
2440/P 60ml specimen containers, in PS, not inserted screw cap, light blue colour, Ø38x65mm
2440/SG 60ml specimen containers, in PS, with screw cap, Ø38x65 mm, sterile ind wrapped
2442/E 60ml faeces containers in PS, with screw cap and spoon, Ø38 x 65 mm, with label
2442/E/SG 60ml faeces containers in PS, with screw cap, spoon, label, Ø38x65mm, sterile ind. wrapped
2442/R 60ml faeces containers in PS, with inserted red screw cap and spoon, Ø38 x 65 mm
2442/SG 60ml faeces containers in PS, with screw cap and spoon, Ø38x65mm, sterile ind. wrapped
2450/B 60ml specimen containers in PP with inserted white screw cap, Ø38x65 mm, not graduated
2450/CS 60ml specimen containers, in PP, with inserted screw cap Ø38x65mm, individually wrapped
2450/E 60ml specimen containers, in PP, with inserted screw cap Ø38 x 65 mm, with label
2450/E/CS 60ml specimen containers, in PP, with inserted screw cap 38x65mm, ind. wrapped, label
2450/E/SG 60ml specimen containers, PP, with screw cap and label Ø38x65mm, sterile ind wrapped
2450/E/TS 60ml specimen containers, in PP, with inserted screw cap Ø38x65mm, label, sterile
2450/P 60ml specimen containers, in PP, Ø38 x 65 mm, with screw cap not assembled
2450/R 60ml specimen containers, in PP, with inserted red screw cap, Ø38 x 65 mm
2450/SCH 60ml specimen containers, in PP, with inserted screw cap Ø38 x 65 mm
2450/SG 60ml specimen containers, in PP, with screw cap, Ø38x65 mm, sterile ind wrapped
2450/SG/100 60ml specimen containers, in PP, with screw cap, sterile in bags of 100 pieces
2450/SG/SCH 60ml specimen containers, in PP, with screw cap, Ø38x65 mm, sterile ind wrapped
2450/TS 60ml specimen containers, in PP, with inserted screw cap Ø38 x 65 mm, sterile
2452/E 60ml faeces containers in PP, with screw cap and spoon, Ø38 x 65 mm, with label
2452/E/CS 60ml faeces containers, PP, cap, spoon, label, Ø38x65 mm, ind. wrapped
2452/E/SG 60ml faeces containers in PP, with screw cap, spoon, label, Ø38x65mm, sterile ind. wrapped
2452/E/TS STER.SPEC.CONTAINER IN PP 38x65 60 ML WITH SCREW CAP BAGS OF 100 PCS
2452/R 60ml faeces containers in PP, with red screw cap and spoon, Ø38 x 65 mm
2452/SG 60ml faeces containers in PP, with screw cap and spoon, Ø38x65 mm, sterile ind wrapped
2452/SG/100 60ml faeces containers in PP, with screw cap and spoon, Ø38x65mm, sterile bags 100 pcs
2452/T/5 60 ml faeces containers in PPM
2500* K3 EDTA - PERFORABLE CAP
2500/1 K3 EDTA low volume paediatric use, pierceable violet rubber cap, x 1.5ml blood, Ø13x75 mm
2500/N Test tubes in PP with K3 EDTA, for 3ml of blood, Ø13 x 75 mm, with neutral pierceable cap
2500/N* Test tubes in PP with K3 EDTA, for 3ml of blood, Ø13 x 75 mm, with neutral pierceable cap
2500/SE Test tubes in PP with K3 EDTA, for 3ml of blood without label with green pierceable cap
2500/SE/V Test tubes in PP with K3 EDTA, for 3ml blood, without label, with pierceable violet cap
2500/V Test tubes in PP with K3 EDTA, for 3ml of blood, Ø13 x 75 mm, with violet pierceable cap
2500/V* Test tubes in PP with K3 EDTA, for 3ml of blood, Ø13 x 75 mm, with violet pierceable cap
2500/V/2 Test tubes in PP with K3 EDTA, rubber violet pierceable cap, Ø13x75 mm, for 2 ml of blood
2500/V/SG Test tubes in PP. K3 EDTA, 3ml of blood, Ø13x75,sterile
2501/B Test tubes with 0.4ml Sodium Citrate for coagulation, in PP blue cap, Ø16 x 60 mm

2502/B Test tubes with 0.4ml Sodium Citrate for coagulation, in PP blue cap, Ø12 x 86 mm
2505/1 Test tube with 0,1ml Sodium Citrate for coagulation yellow cap, paediatric use, Ø12x56 mm
2505/1/B Test tube with 0,1ml Sodium Citrate for coagulation blue cap, paediatric use, Ø12x56 mm
2508/B Test tubes with 0.4ml Sodium Citrate for coagulation, in PP blue cap, Ø13 x 75 mm
2508/BLU SODIUM CITRATE 0,4ML BLUE CAP IN TT 13X75 FOR COAGULATION
251/AN Petri dishes Ø 90 mm, with 2 sectors, triple vents, in PS, aseptic
251/B Petri dishes Ø 90 mm, with triple vents, in PS, aseptic, 2sectors, white box
251/SG Petri dishes Ø 90 mm, with 2 sectors, triple vents, in PS, sterile R
251/SG/AN Petri dishes Ø 90 mm, with 2 sectors, triple vents, in PS, sterile R
251/SG/B Petri dishes Ø 90 mm, with triple vents, in PS, sterile, 2 sectors, white box
2511/B Test tubes with 0.5ml Sodium Citrate for coagulation, in PP blue cap, Ø16 x 60 mm
2512/B Test tubes with 0.5ml Sodium Citrate for coagulation, in PP blue cap, Ø12 x 86 mm
2512/TB Test Tube with 0.5 ml Sodium Citrate for coagulation, in PP Ø 12 x 86 mm
2515/BLU 0.5 ml Sodium Citrate in test tube PP Ø13x75, blue cap,
2515/TB/F Test tubes with 0.5ml Sodium Citrate, in PP blue cap, Ø13 x 75 mm
2520/B Test tubes with 0.25ml Sodium Citrate for coagulation, in PP blue cap, Ø12 x 56 mm
2520/TB Test tube with 0,25ml Sodium Citrate with blue cap in PP
2520/TR Test tubes with 0.25ml Sodium Citrate for coag, pink in PP
2521/B Test tubes with 0.25ml Sodium Citrate for coagulation, in PP blue cap, Ø16 x 60 mm
2522/B Test tubes with 0.25ml Sodium Citrate for coagulation, in PP blue cap, Ø12 x 86 mm
2522/R Test tubes with 0.25ml Sodium Citrate for coagulation, in PP pink cap, Ø12 x 86 mm
2525/2 Test tubes with 0.2ml Sodium Citrate for coagulation, in PP yellow cap, Ø13 x 75 mm
2525/32/BLU Test tubes with 0.25ml Sodium Citrate 3.2% for coagulation, in PP, blue cap, Ø13 x 75 mm
2525/B Test tubes with 0.25ml Sodium Citrate for coagulation, in PP blue cap, Ø13 x 75 mm
2580/B 25ml specimen containers, in PS, inserted white screw cap, Ø25 x 90 mm
2580/B/BULK 25ml specimen containers, in PS, inserted white screw cap, Ø25 x 90 mm, in bulk
2580/B/SG 25ml specimen containers, in PS, inserted white screw cap, Ø25x90 mm, sterile bags 100pcs
2580/E 25ml specimen containers, in PS, with inserted screw cap Ø25 x 90 mm, with label
2580/E/CS 25ml specimen containers, in PS, with inserted screw cap Ø25 x 90 mm, with label, individually wrapped
2580/E/P UNIVERSAL CONTAINER PS 25ML W/SCREW CAP NOT INSER.+LABEL
2580/E/P/W UNIVERSAL CONTAINER PS 25 ML W/SCREW CAP NOT INSERTED+LABEL
2580/E/SG 25ml specimen containers, PS, with screw cap and label, Ø25 x 90 mm, sterile
2580/E/SG/B 25ml specimen containers, PS, screw WHITE cap and label,
2580/E/SG/CS 25ml specimen containers, PS, with screw cap and label, Ø25x90 mm, sterile ind wrapped
2580/E/SG/CS/W 25ml specimen containers, PS, with screw cap and label, Ø25x90 mm, sterile ind wrapped
2580/E/TS SPECIMEN CONTAINER 25 ML 25X80 IN PS SCREW CAP STER.W/LABEL
2580/E/TS/W 25ml faeces containers in PS, with inserted screw cap and label, Ø25x90mm, sterile
2580/E/W SPECIMEN CONTAINER 25 ML PS - WITH LABEL AND LABEL - BAGS OF 100 PCS
2580/EB UNIVERSAL CONTAINER 30ML SCREW CAP + LABEL AND LABEL - BAGS OF 100 PCS
2580/EB/TS SPECIMEN CONTAINER 25 ML 25X80 IN PS SCREW CAP STER. + PLAIN LABEL
2580/EB/TS/W 25ml faeces containers in PS, with white screw cap, Ø25x90mm, label, sterile
2580/ER SPECIMEN CONTAINERS 25 ML, DIM. Ø25x80 MM WITH SEPARATE SCREW CAP

2580/EST/SG 25ml specimen containers, PS, with screw cap and label, Ø25 x 90 mm, sterile
2580/P 25ml specimen containers, PS, with not inserted screw cap light blue, Ø25x90 mm,
2580/PB 25ml specimen containers, PS, with not inserted screw cap white colour, Ø25x90 mm,
2580/S 30ml specimen containers, in PS, without cap, Ø25x90mm
2580/TG/SG 30ml specimen containers, in PS, with screw cap Ø25 x 90 mm, sterile
2580/SG/CS 30ml specimen containers, in PS, with screw cap Ø25x90 mm, sterile ind wrapped
2580/TAPPO/A Caps for 2580 light blue color
2580/TB/SG/CS 25ml specimen containers, in PS, with white screw cap, Ø25x90 mm, sterile ind wrapped
2580/TBIANCO Caps for 2580 white color
2580/TG/SG 25ml specimen containers, in PS, with screw cap, Ø25x90 mm, sterile
2580/TS SPEC.CONTAINER CONT. 30 ML IN PS STERILE
2580/TS/W 25ml specimen containers, in PS, with white screw cap Ø25 x 90 mm, sterile
2580/W 25 ml specimen containers, in PS, Ø 25 X 90 mm with white inserted screw cap
2580P 25ml specimen containers, in PS, with not inserted screw cap, Ø25 x 90 mm
2588/E 25ml faeces containers in PS, with screw cap and spoon, Ø25 x 90 mm, with label
2588/E/CS 25ml faeces containers in PS, with screw cap and spoon, Ø25x90mm, label, ind. wrapped
2588/E/SG 25ml faeces containers in PS, with screw cap, spoon, label Ø25 x 90 mm, sterile
2588/E/SG/CS 25ml faeces containers in PS, with screw cap, spoon, label Ø25x90 mm, sterile ind wrapped
2588/E/SG/CS/W STOOL CONTAINER 25 ML IN PS W/SPOON AND SCREW CAP
2588/E/TS SPECIMEN CONTAINER 25 ML 25X80 IN PS SCREW CAP STERIL.W/LABEL
2588/E/TS/W 25ml faeces containers in PS, with screw cap and spoon, Ø25x90mm, label, sterile
2588/EB UNIVERSAL CONTAINER 30ML SCREW CAP+LABEL AND SPOON SCREW CAP W/SPOON -LABELLED
2588/EB/TS SPECIMEN CONTAINER 25 ML 25X40 IN PS SCREW CAP STERIL WITH PLAIN LABEL
2588/EB/TS/W SPECIMENT CONTAINER 25 ML PS W/SCREW CAP + PLAIN LABEL STERIL WITH PLAIN LABEL
2588/P 25ml faeces containers in PS, with spoon not assembled, Ø25 x 90 mm
2588/SG 25ml faeces containers in PS, with screw cap and spoon, Ø25 x 90 mm, sterile
2588/SG/CS 25ml faeces containers in PS, with screw cap and spoon, Ø25x90 mm, sterile ind wrapped
2588P Spoon in polypropylene for faeces, white colour
2600/1 Paediatric test tubes with Sodium Citrate for 1ml blood, for ESR, PINK cap, Ø12x56 mm
2600/TN test tubes with 0,25ml Sodium Citrate with black cap in PP
261/AN Petri dishes Ø 90 mm, with 3 sectors, triple vents, in PS, aseptic
261/B Petri dishes Ø 90 mm, with triple vents, in PS, aseptic, 3 sectors, white box
261/SG Petri dishes Ø 90 mm, with 3 sectors, triple vents, in PS, sterile R
261/SG/AN Petri dishes Ø 90 mm, with 3 sectors, triple vents, in PS, sterile R
261/SG/B Petri dishes Ø 90 mm, with triple vents, in PS, sterile, 3 sectors, white box
2610/G Test Tubes 0,4ml Sodium yellow cap Citrate for E.S.R. in PP
2615/TN Test tubes with 0.4ml Sodium Citrate for ESR, in PP black cap, Ø13 x 75 mm
2640/E 60 ml containers Ø39x60mm, in PS, alluminium screw cap with gasket, with label
2640/E/SG 60 ml containers Ø39x60mm, in PS, alluminium screw cap with gasket, with label, sterile
2640/E/TS 60 ml containers Ø39x60mm, in PS, alluminium screw cap with gasket, with label, sterile
2640/SG 60 ml containers Ø39x60mm, in PS, alluminium screw cap with gasket, sterile
2640/TS 60 ml containers Ø39x60mm, in PS, alluminium screw cap with gasket, sterile
2661/E/TB 10ml test tube with separating gel + clot acc., in PP, with label, Ø16x100 mm, red low cap
2662/E 10ml test tube with separating gel + clot acc., in PP, with red cap and label, Ø16x100 mm

2662/E/TB 10ml test tube with separating gel + clot acc., in PMMA, with brown cap and label, Ø16x100mm
2662/E/TBR 10ml test tube with separating gel + clot acc., in PMMA, with low red cap and label, Ø16x100mm
2662/TB TT WITH SEP.SILICONE GEL+CLOT ACCEL. IN PMMA 16X100 LOW STOP
2662/TM TT WITH SEP.SILICONE GEL+CLOT ACCEL. IN PMMA 16X100 BROWN CAP
2663/E/TB 5ml test tubes with separating gel + clot acc., in PP, with Ø13x75 mm, low cap
2664/E/TB Test tubes in PP with gel+clot activator, for 5 ml of blood, Ø12 x 86 mm
2665/E 5ml test tubes with separating gel + clot acc., in PP, with red cap and label, Ø13 x 75 mm
2665/E/TB 5ml test tubes with separating gel + clot acc., in PMMA, with brown cap and label, Ø13x75 mm
2665/TB 5ml test tubes with separating gel + clot acc., in PMMA, with brown cap, Ø13x75 mm
2666/E/TB 10ml test tube with separating gel + clot acc., in PP, with brown cap and label, Ø16x100mm
2666/TB 10ml test tube with separating gel + clot acc., in PP, with brown cap, Ø16x100mm
2668/E 5ml test tubes with separating gel + clot acc., in PP, with red cap and label, Ø12 x 86 mm
2668/E/TB 5ml test tubes with separating gel + clot acc., in PMMA, with brown cap and label, Ø12x86 mm
2668/TB SILICONE GEL+CLOT ACCELERATOR IN PMMA 12X86 TT FOR 5ML OF BLOOD-LOW CAP
2678/E/TB 5ml test tubes with separating gel + clot accelerator, in PP Ø12 x 86 mm, brown cap, label
2680/E/SG/CS 25ml specimen containers, PP, with screw cap, Ø25x90 mm, sterile ind wrapped
2680/CS 25ml specimen containers, in PP, with screw cap, Ø25x90mm, conf. singola
2680/E 25ml specimen containers, in PP, with inserted screw cap Ø25 x 90 mm, with label
2680/E/SG 25ml specimen containers, PP, with screw cap and label, Ø25 x 90 mm, sterile
2680/E/SG/CS 25ml specimen containers, PP, with screw cap and label, Ø25x90 mm, sterile ind wrapped
2680/E/TS 25ml specimen containers, PP, with screw cap and label, Ø25 x 90 mm, sterile
2680/EB/TS 25ml specimen containers, PP, white inserted screw cap Ø25x90 mm, with label, sterile
2680/EST/SG 25ml specimen containers, PP, with screw cap and label, Ø25 x 90 mm, sterile
2680/EST/SG/CS 25ml specimen containers, PP, with screw cap and label, Ø25x90mm, sterile ind. wrapped
2680/P 25ml specimen containers, in PP, with not inserted screw cap, Ø25 x 90 mm
2680/S 25ml specimen containers, in PP, with inserted screw cap, Ø25 x 90 mm, bulk
2680/SG 25ml specimen containers, in PP, with screw cap Ø25 x 90 mm, sterile
2680/SG/CS 25ml specimen containers, in PP, with screw cap Ø25x90 mm, sterile ind wrapped
2680/TS SPECIMEN CONTAINERS 25 ML 25X80 IN PP W/SCREW CAP STERILE WITHOUT LABEL
2688/E 25ml faeces containers in PP, with screw cap and spoon, Ø25 x 90 mm, with label
2688/E/CS 25ml faeces containers in PP, with screw cap and spoon, Ø25x90 not sterile ind wrapped
2688/E/SG 25ml faeces containers in PP, with screw cap, spoon, label Ø25 x 90 mm, sterile
2688/E/SG/CS 25ml faeces containers in PP, with screw cap, spoon, label Ø25x90 mm, sterile ind wrapped
2688/E/TS 25ml faeces containers in PP, with inserted screw cap and, spoon Ø25x90mm, label, sterile
2688/SG 25ml faeces containers in PP, with screw cap and spoon, Ø25 x 90 mm, sterile
2688/SG/CS 25ml faeces containers in PP, with screw cap and spoon, Ø25x90 mm, sterile ind wrapped
2700/2 PP Test tubes with light blue pierceable rubber cap, 0.2ml
271/AN Petri dishes Ø 90 mm, with 4 sectors, triple vents, aseptic
271/B Petri dishes Ø 90 mm, with triple vents, in PS, aseptic, 4 sectors, white box
271/SG Petri dishes Ø 90 mm, with 4 sectors, triple vents, in PS, sterile R
271/SG/AN Petri dishes Ø 90 mm, with 4 sectors, triple vents, in PS, sterile R
271/SG/B Petri dishes Ø 90 mm, with triple vents, in PS, sterile, 4 sectors, white box

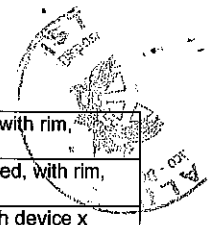


30200/1 K3 EDTA vacuum tubes in PET, vol. 1 ml, Ø13 x 75 mm, sterile, violet cap and label
3024/PRONTO 24h graduated urine bottles 2500ml, PE, PRONTOTEST cases
3024/SG URIN-CONTROL 24 HOURS URIN.COLL.CONT.IN PE IND.WRAP.-STERILE-2500 ML
3031/SGPRONTO Urine test tube with pressure cap, PS, 10ml, Ø16x100mm sterile - PRONTOTEST cases
3039/SG 10ml conical test tubes in PP, Ø16x100mm, graduated, red cap, sterile ind. wrapped, cases
3039/SG/PPC 10ml cylindrical test tubes in PP Ø16x100 graduated, red cap, sterile ind. wrapped, cases
3039/SG/PS 10ml conical test tubes in PS, Ø16x100mm, graduated, red cap, sterile ind. wrapped, cases
3039/SGMEDI 10ml conical test tubes in PP, Ø16x100mm, graduated, red cap, sterile - MEDI PHARM cases
3039/TA/SG 10ml conical test tube Ø16x100 PP, graduated, light blue cap, sterile ind. wrapped, cases
3039/TA/SG/PS 10ml conical test tubes in PS, Ø16x100 graduated, l.blue cap, sterile, ind.wrapped, cased
30500/38 3,8% 9NC vacuum tube in PET, vol. 2.7 ml, Ø13 x 75 mm, sterile, light blue cap, label
30501/38 3,8% 9NC vacuum tube in PET, vol. 3.6 ml, Ø13 x 75 mm, sterile, light blue cap, label
30503/38 3,8% 9NC vacuum tube in PET, vol. 2 ml, Ø13 x 75 mm, sterile, light blue cap, label
3052/SG BIO-TEST sterile ind. Cased 60ml faeces containers in PP, with cap+spoon and label
3052/SGMEDI Faeces container with screw cap and spoon, PP, 60ml, 35x70 sterile - MEDI PHARM cases
3052/SGPRONTO Faeces container with screw cap and spoon, PP, 60ml, 35x70 sterile - PRONTOTEST cases
31/N Petri dishes Ø 35 mm, with triple vents, in PS, not sterile
3120/SG URIN-TEST sterile ind. Cased 150ml urine containers in PP, with cap and label, graduated
3120/SG/20 150ml sterile urine containers in PP, screw cap, graduated, ind. cased inner pack of 20pcs
3120/SG/PRONTO Graduated urine container with screw cap, PP, 58x72, 150ml sterile - PRONTOTEST cases
3120/SGFLOYD Graduated urine container with screw cap, PP, 58x72, 150ml sterile - FLOYD cases
3120/SGFUTUR Graduated urine container with screw cap, PP, 58x72, 150ml sterile - FuturCasa cases
3120/SGMEDI Graduated urine container with screw cap, PP, 58x72, 150ml sterile - MEDI-PHARM cases
31400/SG Straws with urine collection device, lenght 90 mm, sterile, bags of 100 pcs
31400/SG/CS Straws with urine collection device for vacuum test tubes, straw length 90 mm, sterile individually wrapped
3211/SG BIO-TEST sterile ind. Cased 60ml faeces containers in PS, with cap+spoon and label
35120/SG 120ml urine containers in PP, with device for vacuum tube, sterile ind wrapped, in cases
35120/SG/PRONTO 120ml urine containers in PP, with device for vacuum tube,
35150/TB Vacuum urine test tube 9 ml, PET, round bottom, Ø16x100 mm, without additive, sterile
3553/E 10ml test tubes with clot accellerator, in PMMA, with red cap and label, Ø16x100 mm
3554/E 5ml test tubes with clot accellerator, in PP, with red cap and label, Ø12 x 86 mm
3555/E 4ml test tubes with clot accellerator, in PMMA, with red cap and label, Ø13 x 75 mm
3556/E 10ml test tubes with clot accellerator, in PP, with red cap and label, Ø16x100 mm
3558/E 5ml test tubes with clot accellerator, in PMMA, with red cap and label, Ø12 x 86 mm
3771/E/TB 10ml test tube with separating gel, in PP, with label, Ø16 x 100 mm, red low cap
3772/E/TB 5ml separating gel test tubes in PP, with label, Ø13x75 mm, low grip cap type red colour
3773/E 10ml test tube with separating gel, in PP, with red cap, with label, Ø16 x 100 mm
3773/E/TB 10ml test tube with separating gel, in PMMA, with brown cap, with label, Ø16 x 100 mm
3773/TB 10ml test tube with separating gel, in PMMA, with brown cap, Ø16 x 100 mm
3774/E/TB 5 ml test tube with separating gel, in PP, with label, Ø12 x 86 mm, low grip red cap
3775/E 5ml test tubes with separating gel, in PP, with red cap, with label, Ø13 x 75 mm

3775/E/TB 5ml test tubes with separating gel, in PMMA, with brown cap, with label, Ø13 x 75 mm
3776/E/TB 10ml test tube with separating gel, in PP, with brown cap, with label, Ø16 x 100 mm
3776/TB 10ml test tube with separating gel, in PP, with brown cap, Ø16 x 100 mm
3778/E 5ml test tubes with separating gel, in PP, with red cap, with label, Ø12 x 86 mm
3778/E/TB 5ml test tubes with separating gel, in PMMA, with brown cap, with label, Ø12 x 86 mm
4001/E Tips Eppendorf type in PP, vol. 50-1000ul, blue colour, in rack of 96pcs
4001/E/SG Tips Eppendorf type in PP, vol. 50-1000ul, blue colour, sterile in rack of 96pcs
4001/G Tips Gilson type in PP, vol. 50-1000 ul, blue colour, in rack of 96pcs
4001/G/SG Tips Gilson type in PP, vol. 50-1000 ul, blue colour, sterile in rack of 96pcs
4001/U Universal tips in PP, vol. 50-1000ul, blue colour, in racks of 96 pcs
4001/U/SG Universal tips in PP, vol. 50-1000 ul, blue colour, sterile in rack of 96pcs
4001/UN Universal tips in PP, vol. 50-1000 ul, neutral colour, graduated, rack of 96 pieces
4001/UN/SG Universal tips in PP, vol. 50-1000 ul, neutral colour, graduated, sterile rack 96 pcs
4002/U Tips Eppendorf type in PP, 20-300ul graduated, neutral, in rack of 96pcs
4002/U/SG Tips Eppendorf type in PP, 20-300ul graduated, neutral, sterile in rack of 96pcs
4202/B/SG STER.PIPETTE TIPS-RACK W/LID VOL. 1-300 ul NEUTRAL, STERILE IN AUTOCL. RACK 96 PCS
4202/C Tips Eppendorf type in PP, 0,5-10 ul cristal, neutral, in rack of 96pcs
4202/C/SG Tips Eppendorf type in PP, 0,5-10 ul cristal, neutral, sterile in rack of 96pcs
4202/E Tips Eppendorf type in PP, vol. 5-200 ul, yellow colour, in rack of 96pcs
4202/E/SG Tips Eppendorf type in PP, vol. 5-200 ul, yellow colour, sterile in rack of 96pcs
4202/G Tips Gilson type in PP, vol. 5-200 ul, yellow colour, in rack of 96pcs
4202/G/SG Tips Gilson type in PP, vol. 5-200 ul, yellow colour, sterile in rack of 96pcs
4202/M Tips MLA type in PP, vol. 5-200 ul, neutral colour, in rack of 96pcs
4202/M/SG Tips MLA type in PP, vol. 5-200 ul, neutral colour, sterile in rack of 96pcs
4202/MG Tips Gilson type in PP, vol. 0.1-10ul, neutral colour, in rack of 96pcs
4202/MG/SG Tips Gilson type in PP, vol. 0.1-10ul, neutral colour, sterile in rack of 96pcs
4202/OM Tips Oxford type in PP, vol. 5-200 ul, neutral colour, in rack of 96pcs
4202/OM/SG Tips Oxford type in PP, vol. 5-200 ul, neutral colour, sterile in rack of 96pcs
4202/U Universal tips in PP, vol 2-200ul graduated, yellow, in rack of 96pcs
4202/U/SG Universal tips in PP, vol 2-200ul graduated, yellow, sterile in rack of 96pcs
4203/U Micropipettes tips universal type, neutral color, 2-200ul, rack of 96pcs
4203/U/SG Micropipettes tips universal type, neutral colour, 2-200ul graduated, rack of 96 pcs
4204/U Universal tips in PP, yellow, Vol. 2-200ul, not graduated, beveled, in rack of 96 pcs.
4204/U/SG Universal tips in PP, yellow, Vol. 2-200ul, not graduated, sterile in rack of 96 pcs
4302/B Tips Biohit type in PP, vol. 2-300 ul, neutral colour, in rack of 96pcs
4302/B/SG Tips Biohit type in PP, vol. 2-300 ul, neutral colour, sterile in rack of 96pcs
4302/G Tips Gilson type in PP, 2-200 ul graduated, neutral, in rack of 96pcs
4302/G/SG Tips Gilson type in PP, 2-200 ul graduated, neutral, sterile in rack of 96pcs
4302/U Micropipettes tips universal type, neutral color, 2-200ul, graduated
4402/B Tips Biohit m-Line/Proline type, vol. 0.1-10ul, neutral colour, rack of 96 pcs
4402/B/SG Tips Biohit m-Line/Proline type, vol. 0.1-10ul, neutral colour, sterile in rack 96 pcs

4402/E Tips Eppendorf type in PP, vol. 2-20 ul, neutral colour, in rack of 96pcs
4402/E/SG Tips Eppendorf type in PP, vol. 2-20 ul, neutral colour, sterile in rack of 96pcs
4402/G Tips Gilson type in PP, vol. 2-200 ul, yellow colour, in racks of 96 pcs
4402/G/SG Tips Gilson type in PP, vol. 2-200 ul, yellow colour, sterile in rack of 96pcs
4402/MG Tips Gilson type in PP, 0.1-10ul lengthened, neutral, in rack of 96pcs
4402/MG/SG Tips Gilson type in PP, 0.1-10ul lengthened, neutral, sterile in rack of 96pcs
455/SG/2 Cliniswab VIRUS - Flocked standard+fine swab, 1ml liquid medium for Virus in test tube
455/SG/2F Cliniswab VIRUS - FOAM standard+fine swab, 1ml liquid medium for Virus in test tube
455/SG/3/2 Cliniswab VIRUS - Flocked standard+fine swab, 3ml liquid medium for Virus in test tube
455/SG/3/2F Cliniswab VIRUS - Foam swabs standard+fine tip, 3 ml liquid medium for Virus in test tube
455/SG/3/FT Cliniswab VIRUS - Flocked fine tip swab + 3 ml liquid medium for Virus in test tube
455/SG/3/FT/F Cliniswab VIRUS - FOAM fine tip swab + 3 ml liquid medium for Virus in test tube
455/SG/3/PT Cliniswab VIRUS - Flocked paediatric swab + 3 ml liquid medium for Virus in test tube
455/SG/3/ST Cliniswab VIRUS - Flocked Standard swab + 3 ml liquid medium for Virus in test tube
455/SG/3/ST/D Cliniswab VIRUS - polyester standard tip swab, 3ml liquid medium for Virus
455/SG/3/ST/F Cliniswab VIRUS - FOAM standard tip swab+3 ml liquid medium for Virus in test tube
455/SG/AL Cliniswab VIRUS - Aluminium standard swab + 1 ml liquid medium for Virus in test tube
455/SG/FT Cliniswab VIRUS - Flocked fine tip swab + 1 ml liquid medium for Virus in test tube
455/SG/FT/D Cliniswab VIRUS - Polyester fine tip swab + 1 ml liquid medium for Virus in test tube
455/SG/FT/F Cliniswab VIRUS - Foam fine tip swab + 1 ml liquid medium for Virus in test tube
455/SG/FT/R Cliniswab VIRUS - Rayon fine tip swab + 1 ml liquid medium for Virus in test tube
455/SG/PT Cliniswab VIRUS - Flocked paediatric swab + 1 ml liquid medium for Virus in test tube
455/SG/ST Cliniswab VIRUS - Flocked standard swab + 1 ml liquid medium for Virus in test tube
455/SG/ST/D Cliniswab VIRUS - Polyester standard swab + 1 ml liquid medium for Virus in test tube
455/SG/ST/F Cliniswab VIRUS - Foam swab standard tip + 1 ml liquid medium for Virus in test tube
455/SG/ST/R Cliniswab VIRUS - Rayon standard swab + 1 ml liquid medium for Virus in test tube
4875/E 5ml test tubes with separating granules+clot acc, in PMMA, with cap and label, Ø13x75 mm
4876/E 5ml test tubes with separating granules+clot acc, in PP, Ø 13 x 75 mm, cap
4876/E/TB 5ml test tubes with separating granules+clot acc, in PP, Ø 13 x 75 mm, cap
4876/ETB 5ml test tubes with separating granules+clot acc, in PP, Ø 13 x 75 mm, white cap
4876/TR/E 5ml test tubes with separating granules+clot acc, in PP, Ø 13 x 75 mm, RED cap
4878/E 5ml test tubes with separating granules+clot acc, in PP, with cap and label, Ø12x86 mm
4878/TR/E 5ml test tubes with separating granules+clot acc, in PP, with RED cap, label, Ø12x86 mm
4883/E 6ml test tube with separating granules + clot accelerat, PP, light blu cap, label Ø13x100mm
4883/E/TN 6ml test tube with separating granules + clot accelerat, PP, black cap and label, Ø13x100mm
4884/E 10ml test tube with separating granules+clot acc, in PMMA, with cap and label, Ø16x100 mm
4885/E 10ml test tube with separating granules+clot acc, in PS, Ø16x100 mm, light blue cap
4885/R T.T. W/SEPAR. GRANULES+CLOT AC CELER. PS FOR 10ML-RED CAP OOD
4886/E 10ml test tube with separating granules+clot acc, in PP, with cap and label, Ø16x100 mm
4886/TR/E 10ml test tube with separating granules+clot acc, in PP, with RED cap, label, Ø16x100mm
4888/E 5ml test tubes with separating granules+clot acc, in PMMA, with cap and label, Ø12x86 mm

4888/EB 5ml test tubes with separating granules+clot acc, in PMMA, white cap and label, Ø12x86 mm
5001/F Macro tips Finnpiquette type, vol. 500-5,000 ul, neutral, packing 250pcs
5001/F/SG Macro tips Finnpiquette type, vol. 500-5,000 ul, neutral, sterile in bags of 5pcs
5001/O Macro tips Gilson type, vol. 1,000-5,000 ul, blue, packing 250pcs
5001/O/SG Macro tips Gilson type, vol. 1,000-5,000 ul, blue, sterile in bags of 5pcs
5001/ON Macro tips Eppendorf type, vol. 1,000-5,000 ul, neutral, packing 250pcs
5001/ON/SG Macro tips Eppendorf type, vol. 1,000-5,000 ul, neutral, sterile in bags of 5pcs
5002/U Tips in kit Eppendorf type, vol. 2-300 ul, neutral colour, 1empty box + 10refill (960pcs)
5003/B 0.75ml micro test tube in HDPE with cap, Ø 7.65 x 35.50 mm, colour blue
5003/G 0.75ml micro test tube in HDPE with cap, Ø 7.65 x 35.50 mm, colour yellow
5003/R 0.75ml micro test tube in HDPE with cap, Ø 7.65 x 35.50 mm, colour pink
5005/C 10ml conical test tubes in PS, not graduated, without rim, Ø16 x 105 mm
5005/C/S 10ml conical test tubes in PS, not graduated, without rim, Ø16 x 105 mm
5005/MO 10ml cylindrical test tubes in PP, without rim, not graduated, Ø16 x 100 mm.
5005/MO/S 10ml cylindrical test tubes in PP, without rim, not graduated, Ø16 x 100 mm.
5005/MO/T 10ml cylindrical test tubes in PP, without rim, not graduated, Ø16x100mm, with cap
5005/MOC 10ml conical test tubes in PP, not graduated, without rim, Ø16 x 105 mm.
5005/MOC/S 10ml conical test tubes in PP, not graduated, without rim, Ø16 x 100 mm
5005/MOC/T 10ml conical test tubes in PP, not graduated, without rim, Ø16 x 100 mm
5005/S 10ml cylindrical test tubes in PS, without rim, not graduated, Ø16 x 100 mm.
5005/S/K 10ml cylindrical test tubes in PS, without rim, not graduated, Ø16 x 100 mm.
5005/S/K/100 10ml cylindrical test tubes in PS, without rim, not graduated Ø16x100mm, bags of 100 pcs
5005/S/TE CYLINDRICAL TT 10 ML 16X100 PS NOT GRADUATED WITH CAP+LABEL
5005/SG/500 10ml cylindrical test tubes in PS, without rim, Ø16x100mm, sterile in bags of 500 pieces
5005/SG/CS 10ml cylindrical test tubes in PS, without rim, Ø16x100mm, sterile individually wrapped
5006/C/T 3ml cylindrical test tubes in PS, not graduated, without rim, Ø11.5 x 55 mm, with cap
5006/MO 3ml cylindrical test tubes in PP, not graduated, without rim, Ø11.5 x 55 mm
5006/SG 3ml cylindrical test tubes in PS, not graduated, sterile, without rim, Ø11.5x55 mm
5006/T 3ml cylindrical test tubes in PS not graduated, with cap, without rim, Ø11.5 x 55 mm
5006T 3ml cylindrical test tubes in PS not graduated, with cap, without rim, Ø11.5 x 55 mm
5015/100 Cap in PE for cuvettes for spectrophotometer, neutral colour, 10x10 mm
5015/SG Caps in PE 10x10 mm, for cuvettes spectrophotometer, Sterile R
5018/1000 5ml cylindrical test tubes in PS, with rim, graduated, Ø12x86mm, bags of 1000 pcs
5018/MO 5ml cylindrical test tubes in PP, with rim, graduated, Ø12 x 86 mm.
5018/MO/1000 5ml cylindrical test tubes in PP, with rim, graduated, Ø12x86 mm, bags of 1,000 pcs
5018/SG/500 5ml cylindrical test tubes in PS, with rim, graduated, Ø12 x 86 mm.
5024/E URINE CONTAINERS "24 HOURS"VOL.2500ML SAMPLING BOTTLE IN PE W/LABEL
5024/E/SG STER.URINE CONTAINERS "24 HOURS"VOL 2500 ML IN PE WITH LABEL
5024/F Sampling bottles 2,500ml, for 24h urine collection, PE, graduated, Ø130 x 250 mm
5024/SG STERILE URINE CONTAINERS '24 HOURS' VOL. 2500 ML. IN PE IND. WRAPPED
5024K Sampling bottles 2,500ml, for 24h urine collection, PE Kartell type

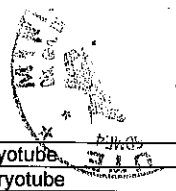


50351/SG 50ml conical test tubes in PP, with screw cap, graduated serigraphed, Ø30x114mm sterile
50351/SG/CS 50ml conical test tube PP with cap, graduated serigraphed, Ø30x114mm sterile ind. Wrapped
50352/SG 15ml conical test tubes in PP, with screw cap, graduated serigraphed, Ø18x118mm sterile
50352/SG/CS 15ml conical test tube PP with cap, graduated serigraphed, Ø18x118mm sterile ind. Wrapped
50353/SG 10ml conical test tube PP self-standing, graduated serigraphed, Ø16 x 100 mm, ste
50353/SG/CS 10ml conical test tube PP,with blue screw cap, graduated, serigra., sterile ind. wrapped
50354/SG 50ml conical test tube PP self-standing, serigraphed,sterile , screw cap, Ø30 x 115 mm.
50354/SG/CS 50ml conical test tube PP self-standing, serigraphed,sterile ind. wrapped,screw cap,Ø30x115
5035/E 5ml cylindrical test tubes in PS, with rim, graduated, Ø12 x 86 mm, with label
5035/MO/E 5ml cylindrical test tubes in PP, with rim, graduated, Ø12 x 86 mm, with label
5050/S 60 ml faeces containers in PP 35x70mm without cap
5060/CS 60 ml urine containers in PP, screw cap with device x vacuum test tube, ind wrap no sterile
5060/SG 60ml urine containers in PP, screw cap with device x vacuum test tube, sterile ind wrapped
5060/TS 60 ml urine containers in PP with screw cap with device for vacuum tube, sterile
5060TS+35150 60 ml urine containers with vacuum cap + vacuum test tube
5096/C Microtiter plate lid in PS, 86x128 mm
5096/C/SG Microtiter plate lid in PS, 86x128 mm, sterile ind wrapped
5096/P Microtiter plate in PS with 96 wells flat bottom, 86x128 mm
5096/P/SG Microtiter plate in PS with 96 wells flat bottom, 86x128 mm sterile individually wrapped
5096/P/SG+COP Microtiter plates, PS, 96 wells, flat bottom, individually wrapped, sterile, lid
5096/P+COP Microtiter plates, PS, with 96 wells, flat bottom, lid
5096/U Microtiter plate in PS with 96 wells U bottom shape, 86x128mm
5096/U/25 MICROTITER PLATES IN PS."U"BOTTOM PKT OF 25PCS
5096/U/25/SG MICROTITER PLATES PS "U"BOTTOM STERILE PKT 25PCS
5096/U/5 MICROTITER PLATES IN PS "U" BOTTOM - BAGS OF 5 PCS
5096/U/SG Microtiter plate in PS with 96 wells U bottom shape, 86x128mm sterile individually wrapped
5096/U/SG+COP Microtiter plates, PS, 96 wells, "U" shaped wells bottom, individually wrapped, sterile, lid
5096/U+COP Microtiter plates, PS, with 96 wells, "U" shaped wells bottom, lid
5096/V Microtiter plate in PS with 96 wells V bottom shape, 86x128mm
5096/V/SG Microtiter plate in PS with 96 wells V bottom shape, 86x128mm sterile individually wrapped
5096/V/SG+COP Microtiter plates, PS, 96 wells, "V" shaped wells bottom, individually wrapped, sterile, lid
5101/E Tips in kit Eppendorf type, vol. 100-1000 ul, blue colour, 1empty box + 10refill (960pcs)
5101/U Tips in kit Universal type, vol. 100-1000 ul, blue colour, 1empty box + 10refill (960pcs)
5112/E 3ml flat bottom test tubes in PS, graduated, with rim, Ø12 x 56 mm, with label
5112/MO 3ml flat bottom test tubes in PP, graduated, with rim, Ø12 x 56 mm
5112/MO/E 3ml flat bottom test tubes in PP, graduated, with rim, Ø12 x 56 mm, with label
5112/MO/T 3ml flat bottom test tubes in PP, graduated, with rim, Ø12 x 56 mm, with cap
5112/MO/T/P 3ml flat bottom test tubes in PP, graduated, with rim, Ø12 x 56mm, with separated cap
5112/MO/TAL 3ml flat bottom test tubes in PP, graduated, with rim, Ø12x56 mm, cap with tongues
5112/MO/TE 3ml flat bottom test tubes in PP, graduated, with rim, Ø12x56 mm, with cap and label
5112/MOR 3ml flat bottom test tubes in Random PP, graduated, with rim, Ø12 x 56 mm
5112/T 3ml flat bottom test tubes in PS, graduated, with rim, Ø12 x 56 mm, with cap
5112/T/100 3ml flat bottom cylindrical test tubes, in PS, Ø12x56 mm, with cap, bags of 100 pcs

5112/TE 3ml flat bottom test tubes in PS, graduated, with rim, Ø12x56 mm, with cap and label
5112/TE/SG 3ml flat bottom test tubes in PS, graduated, with rim, Ø12x56 mm, cap, label, sterile
5120/CS 120ml urine containers in PP, screw cap with device x vacuum test tube, ind wrap no sterile
5120/E/SG 120 ml urine containers in PP, with screw cap with device for vacuum tube, sterile individually wrapped
5120/E/TS 120 ml urine containers in PP, with screw cap with device for vacuum tube, sterile
5120/SG 120ml urine containers in PP, screw cap with device x vacuum test tube, sterile ind wrapped
5120/TS 120ml urine containers in PP with screw cap with device for vacuum tube, sterile
5122* VACUTAINER TEST TUBES CAPS IN PE FOR T.T. Ø 12 MM BLUE
5122.01 External caps for vacuum test tubes Ø12-13 mm, in PE, colour red
5122.01* External caps for vacuum test tubes Ø12-13 mm, in PE, colour red
5122.02 External caps for vacuum test tubes Ø12-13 mm, in PE, colour blue
5122.02* External caps for vacuum test tubes Ø12-13 mm, in PE, colour blue
5122.03 External caps for vacuum test tubes Ø12-13 mm, in PE, colour green
5122.03* External caps for vacuum test tubes Ø12-13 mm, in PE, colour green
5122.04 External caps for vacuum test tubes Ø12-13 mm, in PE, colour yellow
5122.04* External caps for vacuum test tubes Ø12-13 mm, in PE, colour yellow
5122.05 External caps for vacuum test tubes Ø12-13 mm, in PE, colour grey
5122.05* External caps for vacuum test tubes Ø12-13 mm, in PE, colour grey
5126* VACUTAINER TEST TUBES CAPS PE FOR TT Ø 16 MM YELLOW
5126.01 External caps for vacuum test tubes Ø15-16 mm, in PE, colour red
5126.01* External caps for vacuum test tubes Ø15-16 mm, in PE, colour red
5126.02 External caps for vacuum test tubes Ø15-16 mm, in PE, colour blue
5126.02* External caps for vacuum test tubes Ø15-16 mm, in PE, colour blue
5126.03 External caps for vacuum test tubes Ø15-16 mm, in PE, colour green
5126.03* External caps for vacuum test tubes Ø15-16 mm, in PE, colour green
5126.04 External caps for vacuum test tubes Ø15-16 mm, in PE, colour yellow
5126.04* External caps for vacuum test tubes Ø15-16 mm, in PE, colour yellow
5126.05 External caps for vacuum test tubes Ø15-16 mm, in PE, colour grey
5126.05* External caps for vacuum test tubes Ø15-16 mm, in PE, colour grey
5140/100 20ml cylindrical test tubes in PS, not graduated, without rim, Ø16 x 150 mm.
5140/E 20ml cylindrical test tubes in PS, not graduated, without rim, Ø16 x 150 mm, with label
5140/MO 20ml cylindrical test tubes in PP, not graduated, without rim, Ø16 x 150 mm.
5140/MO/100 20ml cylindrical test tubes in PP, not graduated, without rim, Ø16 x 150 mm.
5140/MO/E 20ml cylindrical test tubes in PP, not graduated, without rim, Ø16 x 150 mm, with label
5140/MO/T 20ml cylindrical test tubes in PP, not graduated, without rim, Ø16 x 150 mm., with cap
5140/MO/T/SG 20ml cylindrical test tubes in PP, without rim, with cap, Ø16 x 150 mm, sterile
5140/MO/TE 20ml cylindrical test tubes in PP, not graduated, without rim, Ø16x150mm, cap and label
5140/MO/TE/SG 20ml cylindrical test tubes in PP, without rim, with cap and label, Ø16x150 mm, sterile
5140/SG 20ml cylindrical test tubes in PS. not graduated. without rim. Ø16X150mm. sterile,
5140/T 20ml cylindrical test tubes in PS, not graduated, without rim, Ø16 x 150 mm., with cap
5140/T/SG 20ml cylindrical test tubes in PS, without rim, with cap, Ø16 x 150 mm, sterile

5140/T/SG/CS 20ml cylindrical test tubes in PS, with cap, without rim, Ø16x150mm, sterile ind wrapped
5140/TE 20ml cylindrical test tubes in PS, not graduated, without rim, Ø16x150mm, cap and label
5140/TE/SG 20ml cylindrical test tubes in PS, no rim, cap and label, Ø16x150 mm, sterile
5140/TE/SG/CS 20ml cylindrical test tubes PS cap & label, no rim, Ø16x150mm, sterile
5140MO/E 20ml cylindrical test tubes PP, not graduated, no rim, Ø16x150mm, cap label
5200/SG L-Shape spreaders in PP, colour white, sterile
5200/SG/CS L-Shape spreaders in PP, colour white, sterile individually wrapped
5201/SG L-Shape spreaders in PP, colour blue, sterile
5201/SG/CS L-Shape spreaders in PP, colour blue, sterile individually wrapped
5202/C Tips in kit Eppendorf type, 0.5-10 ul cristall, neutral
5202/E Tips in kit Eppendorf type, vol. 5-200 ul, yellow colour
5202/G Tips in kit Gilson type, vol. 5-200 ul, yellow colour, 1empty box + 10refill (960pcs)
5202/MG Tips in kit Gilson type, vol. 0.1-10ul, neutral colour
5202/U Tips in kit Universal type, vol. 2-200 ul, yellow colour
5205/SG T-Shape spreaders in PP, colour blue, sterile R, in bags of 5 pieces
5205/SG/CS T-Shape spreaders in PP, colour blue, sterile R, individually wrapped
5250/MO 25ml cylindrical test tubes in PP, graduated, with rim, Ø25 x 95 mm.
5250/MO/T/SG 25ml cylindrical test tubes PP with cap, Ø25x95mm, sterile
5250/MO/TE/SG 25ml cylindrical test tubes PP with cap, Ø25x95mm, sterile
5302/G Tips in kit Gilson type, vol. 2-200 ul, neutral colour, 1empty box + 10refill (960pcs)
5331/S 10ml conical urine test tubes for instruments, in PS, Ø16 x 105 mm, without cap
5331/ST 10ml conical urine test tubes, in PS, Ø16x105, with cap not inserted
5331/TE 10ml conical urine test tubes for instruments, in PS, Ø16x105 mm, with cap and label
5331/TE/SG 10ml conical urine test tubes, PS, Ø16x105mm cap label, sterile
5402/B Kit tips BIOHIT type, vol. 2-300 ul, neutral
5402/E Tips in kit Eppendorf type, vol. 2-20 ul, neutral colour
5402/G Tips in kit Gilson type, vol. 2-200 ul, yellow colour, 1empty box + 10refill (960pcs)
5402/MG Tips in kit Gilson type, 0.1-10ul lengthened, neutral
5434/M Square containers 2000ml for 24h urine collection, PE, graduated, brown colour
5555/E 10ml cylindrical test tubes in PMMA, not graduated, with rim, Ø16 x 100mm, label
5555/T 10ml cylindrical test tubes PMMA, not graduated, with rim, Ø16 x 100 mm, cap
5555/T/SG 10 ml cylindrical test tubes PMMA rim, sterile, cap not graduated
5555/TE 10ml cylindrical test tubes PMMA, not graduated, rim, Ø16x100mm, label cap
5555/TE/SG 11 ml cylindrical test tubes PMMA with rim, Ø16x100mm, sterile, cap label
5558/E 5ml cylindrical test tubes in PMMA, graduated, with rim, Ø12 x 86 mm, with label
5558/T 5ml cylindrical test tubes in PMMA, graduated, rim, Ø12 x 86 mm, with cap
5558/TE 5ml cylindrical test tubes PMMA, graduated, rim, Ø12x86 mm, cap and label
5575/E 5ml cylindrical test tubes in PMMA, graduated at 3ml, with rim and label
5701/CS/100 Disposable forceps in ABS with ergonomic grip, lenght 124mm
5701/S Disposable forceps in ABS, ergonomic grip, lenght 124mm
5701/SG Disposable forceps in ABS, ergonomic grip, lenght 124mm, sterile
5701/SG/CS Disposable forceps in ABS, ergonomic grip, lenght 124mm, sterile
5701/SG/CS/100 Disposable forceps in ABS, sterile, ind. wrapped, bags of 100pcs
5701/SG/CS/P Disposable forceps in ABS, ergonomic grip, lenght 124mm
5710/S Hitachi single cuvettes in bionex, 2.8 x 0.79 x 0.62 cm rack of 200 pieces
5731/E/HH Bottle 24h urine collection PE brown 3000ml, screw cap for vacuum, label Herenz

5931/S Option Behnk Thrombotimer cuvettes, without mixers
5941/S Cuvettes for Amelung 1.5 ml, in PS, Ø20x23mm, with metallic mixers
5975/E 4ml test tubes with separating granules, in PMMA, with green cap and label
5976/E 5ml test tubes with separating granules, in PP with green cap and label
5978/E 5ml test tubes in PP with separating granules with green cap and label
5993/E 6ml test tube with separating granules, in PP, with green cap and label,
5995/E 10ml test tube with separating granules, in PMMA, with green cap and label, Ø16 x 100 mm
5995/ER 10ml test tube with separating granules, in PMMA, with red cap and label
5996/E 10ml test tube with separating granules, in PP, with green cap and label, Ø16 x 100 mm
5998/E 5ml test tubes with separating granules, in PMMA, with green cap and label, Ø12 x 86 mm
6001/F Macro tips Finnpiquette type, vol. 500-5,000 ul, neutral, in racks of 50 pcs
6001/F/SG Finnpiquette tips, neutral colour, 1,000-5,000 ul, rack sterile
6001/O Macro tips Gilson type, vol. 1,000-5,000 ul, blue, in rack of 50pcs
6001/ON Macro tips Eppendorf type, vol. 1,000-5,000 ul, neutral, in rack of 50pcs
6001/ON/SG Macro tips Eppendorf type, 1000-5000 ul, in PP, neutral, sterile in rack of 50 pieces
6001/SG Sterile loops 1ul, in PS, with incorporated needle, bags of 20pcs
6001/SG/40 STERILE INOCULATING LOOPS IN PS, VOL. 1 ul PEEL PACK OF 40 PCS.
6001/SG/BRAND Sterile loops 1ul, in PS, with incorporated needle, in Brand bags of 20pcs
6001/SG/CS Sterile inoculating loops 1ul, neutral colour, sterile individually wrapped
6002/SG Sterile loops 1ul, in PS, with incorporated needle, bags of 5pcs
6002/SG/BRAND Sterile loops 1µl, with incorporated needle, colour neutral, 5 pcs bags
6005/250 10ml cylindrical test tubes in PS, with rim, graduated, Ø16x100mm, bags of 250 pcs
6005/C 10ml conical test tubes in PS, graduated, with rim, Ø16x105mm
6005/C/100 10ml conical test tubes in PS, graduated, with rim, Ø16x105mm
6005/C/50 10ml conical test tubes in PS, graduated, with rim, Ø16x100mm in bags of 50 pieces
6005/C/500 10ml conical test tubes in PS, graduated, with rim, Ø16x100mm bags of 500 pieces
6005/C/T 10ml conical test tubes in PS, graduated, with rim, without cap Ø16x105mm
6005/MO 10ml cylindrical test tubes in PP, with rim, graduated, Ø16 x 100 mm.
6005/MO/100 10ml cylindrical test tubes in PP, with rim, graduated, Ø16 x 100 mm.
6005/MO/250 10ml cylindrical test tubes in PP, with rim, graduated, Ø16x100mm
6005/MO/BLUE 10ml cylindrical test tubes in PP BLUE colour, graduated, rim, Ø16x100 mm.
6005/MO/RED 10ml cylindrical test tubes in PP RED colour, graduated, with rim, Ø16x 100mm.
6005/MO+1027 10ml cylindrical test tubes in PP, Ø16x100mm, with cap not assembled
6005/MO+1127 10ml cylindrical test tubes in PP, Ø16x100mm, with cap not inserted
6005/MOC 10ml conical test tubes in PP, graduated, with rim, Ø16x105mm
6005/MOC/100 10ml conical test tubes in PP, graduated, with rim, Ø16x105mm
6005/SG Sterile loops with two loops 10ul + 1 ul, in PS, yellow, sterile in bags of 20pcs
6005/SG/100 10ml cylindrical test tubes PS, rim, graduated, Ø16x100mm, sterile
6005/SG/BRAND Sterile loops with two loops 10ul + 1 ul, PS, yellow, sterile Brand bags
6005/SG/CS Sterile loops two loops 10ul+1ul, PS, yellow, sterile individually wrapped
6009/C/E 10ml conical test tubes in PP, with rim and label, graduated, Ø16 x 100 mm.



6009/C/T 10ml conical test tubes in PS, rim and cap, graduated, Ø16x100 mm, with label
6009/C/TR/E 10ml conical test tubes PS, rim and cap, graduated, Ø16x100 mm, with label
6009/E 10ml cylindrical test tubes in PS, with rim, graduated, Ø16 x 100 mm, with label
6009/MO/E 10ml cylindrical test tubes in PP, rim, graduated, Ø16 x 100 mm, with label
6009/MO/T 10ml cylindrical test tubes in PP, with rim, graduated, Ø16 x 100 mm, cap
6009/MO/TB/E 10ml cylindrical test tubes in PP, with rim, graduated, Ø16x100mm, white cap, label
6009/MO/TE 10ml cylindrical test tubes in PP, with rim, graduated, Ø16x100 mm, with cap and label
6009/MOC/E 10ml conical test tubes in PP, with rim and label, graduated, Ø16 x 100 mm.
6009/T 10ml cylindrical test tubes in PS, with rim, graduated, Ø16 x 100 mm, with cap
6009/T/SG/CS 10ml cylindrical test tubes PS, rim, graduated, Ø16x100mm, sterile individually wrapped
6010/SG Sterile loops 10ul, in PS, with incorporated needle, bags of 20pcs
6010/SG/40 STERILE INOCULATION LOOPS IN PS, VOL. 10 ul PEEL PACK OF 40 PCS.
6010/SG/BRAND Sterile loops 10ul, in PS, with incorporated needle, Brand bags 20pcs
6010/SG/CS Sterile inoculating loops 10ul , colour blue, sterile individually wrapped
6011/SG Sterile loops 10ul, in PS, with incorporated needle, bags of 5pcs
6011/SG/BRAND Sterile loops 10µl, with incorporated needle, colour blue, 5 pcs bags
6013/MO 7ml cylindrical test tubes in PP, without rim, not graduated Ø13x100mm
6013/MO/T 7ml cylindrical test tubes in PP, with rim, not graduated Ø13x100mm, cap
6013/SG Sterile 7ml cylindrical tubes PS. without rim and graduation
6013/SG/CS 7ml cylindrical test tubes in PS, without rim, not graduated
6013/T 7ml cylindrical test tubes in PS, rim, not graduated, cap, Ø13x100mm
6013/T/SG 7ml cylindrical test tubes PS, no rim, not graduated Ø13x100mm, cap, sterile
6015/SG Sterile loops with two loops 10ul + 1 ul, in PS, yellow, sterile in bags of 5pcs
6015/SG/BRAND Sterile loops with two loops, 10µl and 1µl, colour yellow, 5 pcs bags
6040/SG Sterile inoculation loops with needle + spreading sphere, blue colour
6040/SG/CS Sterile inoculation needle with sphere, sterile individually wrapped
61/N Petri dishes Ø 60 mm, without triple vents, in PS, not sterile
6302/P 1.2ml cryotubes in PP, internal thread, serigraphed Ø12.50 x 43 mm
6311/R 2ml cryotubes PP, internal thread, cylindrical bottom, serigraphed, sterile
6321/P 4ml cryotubes in PP, internal thread, serigraphed, Ø12.50 x 75 mm
6321/R 4ml cryotubes in PP, internal thread, cylindrical bottom, serigraphed, sterile
6331/P 5ml cryotubes in PP, int. thread, not serigraphed Ø12.50x90mm, not inserted cap
6331/R 5ml cryotubes PP, round bottom internal thread, serigraphed, sterile
6402/P 1.2ml cryotubes in PP, external thread, serigraphed, Ø12.50 x 43 mm
6405/P 3ml cryotubes in PP, external thread, screw cap aside, non serigraphed
6411/P 2ml cryotubes in PP, external thread, serigraphed, Ø12.50 x 49 mm
6411/R 2ml cryotubes in PP, external thread, cylindrical bottom, serigraphed, sterile
6421/P 4ml cryotubes in PP, external thread, serigraphed, Ø12.50 x 75 mm
6431/P 5ml cryotubes in PP, external thread, serigraphed, Ø12.50 x 90 mm
65351/SG 50ml conical test tube PP with cap, graduated serigraphed, Ø30x114, sterile in rack 25pcs
65352/SG 15ml conical test tube PP with cap, graduated serigraphed, Ø18x118, sterile in rack 50pcs
6910.01 Light blue colored disks in PP to identify cryotube

6910.02 White colored disks in PP to identify cryotube
6910.03 Yellow colored disks in PP to identify cryotube
6910.04 Pink colored disks in PP to identify cryotube
6910.05 Red colored disks in PP to identify cryotube
6910.06 Green colored disks in PP to identify cryotube
70461/SG 50ml conical test tubes PP for light-sensitive materials, with screw cap, sterile R
70461/SG/CS 50ml conical test tubes in PP for light-sensitive materials, with cap, sterile ind. wrapped
70462/SG 15ml conical test tubes in PP, for light-sensitive materials, with screw cap, sterile R
70462/SG/CS 15ml conical test tubes in PP, for light-sensitive materials, with cap, sterile ind. wrapped
80461/SG 50ml conical tube PP with base for light-sensitive materials with screw cap, sterile R
80461/SG/CS 50ml conical tube PP with base for light-sensitive materials, with cap, sterile ind. wrapped
81/N Petri dishes Ø80, PS, without triple vents
91* Petri dishes Ø 90 mm, with triple vents, in PS aseptic
91/A Petri dishes Ø 90 mm, with triple vents, in PS, aseptic, box of 480 pcs
91/A/SG Petri dishes Ø 90 mm, with triple vents, in PS, sterile R, box of 480 pcs
91/AN Petri dishes Ø 90 mm, with triple vents, in PS aseptic
91/B Petri dishes Ø 90 mm, with triple vents, in PS, aseptic, in white box
91/SAC Petri dishes Ø 90 mm, with triple vents, in PS aseptic
91/SG Petri dishes Ø 90 mm, with triple vents, in PS sterile R
91/SG* Petri dishes Ø 90 mm, with triple vents, in PS sterile R
91/SG/AN Petri dishes Ø 90 mm, with triple vents, in PS sterile R
91/SG/B Petri dishes Ø 90 mm, with triple vents, in PS, sterile, in white box
91/SG/SAC Petri dishes Ø90, PS, with triple vents, sterile, with inner bags
9402/S Tips Biohit m-LINE/PROLINE type, filter, 0.1-10ul, neutral sterile
9501/NS FILTER TIPS EPPENDORF NEUTRAL 101-1001 UL - BAGS OF 1000 PCS
9501/S Filter tips Eppendorf type, vol. 101-1000 ul, neutral, sterile in bags of 1000 pcs
9502/S Filter tips Eppendorf type, vol. 5-100 ul, neutral, sterile in bags of 1000pcs
9503/NS FILTER TIPS EPPENDORF CRISTALL NEUTR. 0,5-10 UL BAGS OF 1000
9503/S Filter tips Eppendorf type, vol. 0.5-10 ul, neutral, sterile in bags of 1,000 pcs
9504/NS FILTER TIPS EPPENDORF NEUTRAL 2-20UL - BAGS OF 1000 PCS
9504/S STER. FILTER TIPS 2-20 UL EPPE NDORF NEUTRAL - BAGS 1000 PCS
9603/S Filter tips Gilson type, 2-100ul beveled grad, neutral, sterile in bags of 1000pcs
9605/S Filter tips Gilson type, 2-30ul beveled gradu, neutral, sterile in bags of 1,000 pcs
9606/S Filter tips Gilson type, vol. 2-200ul beveled, neutral, sterile in bags of 1000 pcs
9610/S STERILE FILTER TIPS 01-10UL GILSON P2-P10 NEUTR-BAGS 1000
9615/NS Filter tips Gilson type, vol. 101-1000 ul, neutral, NOT sterilli, in rack da 96pz
9615/S Filter tips Gilson type, vol. 100-1000 ul, neutral, sterile in bags of 1,000 pcs
9620/NS FILTER TIPS EPPENDORF UNIVERS. NEUTRAL 20-300UL BAGS 1000 PCS
9620/S Filter tips Eppendorf type, 20-300 ul graduated, neutral, sterile
9701/S Filter tips universal type, PP, neutral, 100-1000µl
9703/S Filter tips Universal type, vol. 50-1000 ul, graduated, neutral, sterile
9710/S Filter tips Gilson type, vol. 0.1-10 ul, neutral, sterile in bags of 1000pcs
9711/S Filter tips Universal type, 2-200ul, neutral, graduated, sterile in bags of 1000 pcs
9712/S Filter tips universal type in PP, vol. 2-30 ul, neutral, sterile in bags
9713/S Filter tips universal type in PP, vol. 2-100 ul, neutral, sterile
9901/B GreenTip® Tips for micropipettes universal type, PP, 0.1-10 µl
9902/B Tips universal type, neutral 2-100ul in racks of 96 pcs in green biodegradable PP

9903/B GreenTip® Tips for micropipettes universal type, PP, 100-1000 µl
9920/B GreenTIPS neutral 0,1-10ul, with filter, universal type, sterile in rack 96 pcs
9921/B GreenTIPS neutral 2-100ul, with filter, universal type, sterile in rack 96 pcs
9922/B Neutral tips 2-200ul, sterile with filter, Universal type
9923/B Tip with filter universal type , vol. 100-1000 ul, in rack in biodegradable PP
CON03771A 150ml urine containers in PP, screw cap, sterile ind. wrapp. label
CON05132A 10ml conical test tubes in PP, Ø16x100mm, with cap, sterile ind. wrapped
PROVETTA AMIES GEL AMIES GEL test tubes
PROVETTA AMIES GEL + CARBONE AMIES GEL + CHARCOAL test tubes

PROVETTA STUART GEL STUART GEL test tubes
PROVETTA STUART GEL + CARBONE STUART GEL + CHARCOAL test tubes
PROVETTA CARY BLAIR GEL CARY BLAIR GEL test tubes
PROVETTA VIRUS IN SPUGNA VIRUS in sponge test tubes
PROVETTA CLAMIDIA IN SPUGNA CLAMIDIA in sponge test tubes
PROVETTA AMIES LIQUIDO LIQUID AMIES test tubes
PROVETTA STUART LIQUIDO LIQUID STUART test tubes
PROVETTA CARY BLAIR LIQUIDO LIQUID CARY BLAIR test tubes
PROVETTA SELENITE LIQUID SELENITE test tubes
PROVETTA SOLUZIONE SALINA LIQUID SALINE SOLUTION test tubes

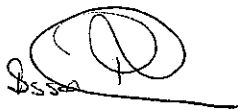

I suddetti prodotti, in base all'art. 4 della direttiva 98/79/CE, sono di libera circolazione e possono essere messi in commercio in Italia e in tutto il territorio dell'Unione Europea.



Si rilascia il presente attestato su richiesta dell'interessato per gli usi consentiti dalla legge e per l'esportazione.

The above mentioned products, according to the art. 4 of 98/79/EC directive, can freely circulate and can be commercialized in Italy and in the whole of the European Union.

This certificate is issued on the interested company's request according to the law for exporting.

PER IL DIRETTORE DELL'UFFICIO 4
FOR THE DIRECTOR OF OFFICE 4
(Dr.ssa Elvira Cecere)


RM/CM


SCHEDA DI SICUREZZA E TECNICA PRODOTTO TECHNICAL AND SAFETY DATA SHEET

DATA EMISSIONE / DATE OF ISSUE
18/02/2021

CODICE ARTICOLO: **5100/SG/CS**
ITEM CODE:

DESCRIZIONE / DESCRIPTION



Tampone sterile monouso per prelievi di cellule o l'assorbimento di essudati da piccole ferite. Puntale in 100% cotone (conforme alla Farmacopea Internazionale), privo di sostanze inibenti e di agenti sbiancanti fluorescenti. Stelo in legno non tossico e resistente agli sbalzi termici.

Il dispositivo ed il materiale di confezionamento sono prodotti con materiali atossici esenti da ftalati e lattice. Sterili in confezione singola carta medica/politene (peel-pack).

Disposable sterile swab for cell collection or absorption of exudates from small wounds. Tip 100% cotton (according to International Pharmacopoeia) free from inhibiting substances and fluorescent whitening agents. Wooden shafts non-toxic and resistant to thermal shock.

The device and the packaging material are produced with non-toxic materials phthalates-free and latex-free. Sterile individually wrapped in medical paper/polythene (peel-pack).

Prodotto con marchio CE - conforme alla Direttiva 93/42/CE e al D.lgs 46 del 24/02/1997

CE Marked product - manufactured in compliance with 93/42/CE Directive and D.lgs 46 dtd 24/02/1997

CARATTERISTICHE PRINCIPALI		TECHNICAL FEATURES
Stato microbiologico	STERILE / STERILE	<i>Microbiological status</i>
Sterilizzazione	Ossido di Etilene / <i>Ethylene Oxide</i>	<i>Sterilization</i>
Materiale asta	Legno di betulla / <i>Wood birchen</i>	<i>Raw material – applicator stick</i>
Materiale puntale in fibra	100% Cotone / <i>100% Cotton</i> (International Pharmacopoeia)	<i>Raw material – fibre tip</i>
Lunghezza totale	150 ±4 mm	<i>Total length</i>
Lunghezza bulbo	15 ±4 mm	<i>Tip lenght</i>
Lunghezza asta	148 ±4 mm	<i>Stick lenght</i>
Diametro bulbo	5 ±1,5mm	<i>Tip diameter</i>
Diametro asta	2,2 ±0,15 mm	<i>Stick diameter</i>
Assorbimento acqua	0,15 g/pz	<i>Water absorption</i>
Validità del prodotto	5 Anni / <i>Years</i>	<i>Shelf life</i>

DESTINAZIONE D'USO / INTENDED PURPOSE

La destinazione è quella di "DISPOSITIVO MEDICO" (Classe I sterile - Invasivo temporaneo – regola 5) per prelievi di cellule o l'assorbimento di essudati da piccole ferite.

Il dispositivo in oggetto è destinato esclusivamente ad uso professionale.

Classificazione Nazionale dei Dispositivi Medici (CND) > M010103 (TAMPONI DI OVATTA)

Repertorio Nazionale dei Dispositivi Medici (RDM) > 6787/R

*Intended purpose is "MEDICAL DEVICE" (Class I sterile – Invasive Devices for transient use, rules 5) for cell collection or absorption of exudates from small wounds. **For professional use only.***

National classification of medical devices (CND - For Italian law) > M010103 (COTTON FLUFFS)

AVVERTENZE PER L'USO / OPERATING INSTRUCTIONS

Non avvicinare il dispositivo alla fiamma o a fonti di calore che lo potrebbero danneggiare.

Keep out of flame or heat sources which might damage the product

Non utilizzare il prodotto scaduto o con la confezione aperta

Do not use after expiry date or if packing is opened

Non riutilizzare: Dispositivo monouso

Do not re-use: Disposable device

Non variare la destinazione d'uso

Do not vary the intended purpose of the product

Prodotto non adatto ai bambini

Keep out of reach of children

Conservare in luogo asciutto, Temperatura min -10°C max +50°C

Store in dry place, Temperature range: min -10°C max +50°C

Non usare con temperature esterna inferiore a 18°C

Do not use on external temperatures lower then 18°C

Smaltimento: utilizzare gli appositi D.P.I e smaltire secondo le normative vigenti

Disposal: use appropriate personal protective equipment and act according to applicable regulations

Prima dell'utilizzo con sostanze particolari consultare sul catalogo le tabelle di resistenza/compatibilità dei materiali.

Before use with particular substance check the resistance / compatibility chart on our catalogue

PRECAUZIONI D'USO / PRECAUTIONAL MEASURES

- Osservare tecniche asettiche quando si utilizza il prodotto.
- Si deve supporre che ogni campione contenga microrganismi infettivi e si deve pertanto trattarlo con le dovute precauzioni. Dopo l'utilizzo, smaltire il tampone secondo le disposizioni del laboratorio relative al materiale infetto.
- Le istruzioni d'uso vanno seguite attentamente.
- Nel caso l'asta debba essere spezzata si consiglia l'uso di forbici sterili per una facile, sicura e pulita frattura.
- Nell'utilizzo del dispositivo la pressione esercitata durante il prelievo deve essere leggera in quanto il materiale dell'asta è frangibile.
- L'adesione della fibra all'asta è testata per prelievi istantanei; una durata prolungata del contatto fra tampone e zona del prelievo può causare la fuoriuscita della fibra.
- Se il tampone viene sottoposto ad un trattamento chimico o fisico a scopo sterilizzante o microbiostatico, la sua funzionalità potrebbe risultarne compromessa.
- *Follow aseptic techniques when using the product.*
- *Each sample shall be assumed to be containing infectious micro-organisms and therefore it shall be treated with the necessary safety measures. After use the swabs shall be disposed of according to the laboratory provisions concerning infectious material.*
- *Strictly follow the user's instructions.*
- *Should the stick need to be broken, the use of sterile scissors is recommended for an easy, safe and clean cut.*
- *When using a device with plastic or wooden stick, the pressure applied during sampling shall be light since the stick material is breakable.*
- *The fibre adhesion to the stick is tested for instantaneous sampling; a longer contact between the swab and the sampling area might cause the fibre to come out.*
- *If the swab is submitted to a chemical or physical sterilizing or micro-biostatic process, its intended functioning could be compromised.*

DETERIORAMENTO DEL PRODOTTO / PRODUCT DETERIORATION

Il contenuto delle unità non ancora aperte e non danneggiate è garantito sterile. Non utilizzarle se presentano tracce di danneggiamento, disidratazione o contaminazione.

Non usarle se già scadute.

The content of the unopened and undamaged units is guaranteed to be sterile. Do not use the units in case of damage, dehydration or contamination.

Do not use if the expiration date has passed.

IMBALLO / PACKING

Quantità (pz): Quantity (pcs):	1.000	Confezione interna (pz): Internal packing (pcs):	Singola Individually	QUANTITÀ MINIMA VENDIBILE MINIMUM SALEABLE QUANTITY	
Misura esterna scatola (cm): External box dimensions (cm):	20 x 20 x 24,5	Peso (Kg): Weight (Kg):	1,35	Volume (m ³): Volume (m ³):	0,013

SIMBOLI UTILIZZATI SULL'IMBALLO / PACKING SYMBOLS



Data di fabbricazione
Manufacturing date



Data di scadenza
Expiry date



Consultare i documenti accompagnatori
Please consult accompanying documents



Numero di lotto
Lot number



Monouso
Disposable



Sterilizzazione con Ossido di Etilene (EO)
Sterilization by Ethylene Oxide (EO)

DATA SHEET



PETRI DISHES Ø90 MM

In polystyrene with high optical clarity. Available, upon request, with inner bag for use in Cleanroom.



Cod.	Description
91	With triple vents - Aseptic
91/SG	With triple vents - Sterile R
101	Without vents - Aseptic
101/SG	Without vents - Sterile R

Quantitative assay for determining the Minimum Inhibitory Concentration (M.I.C.)

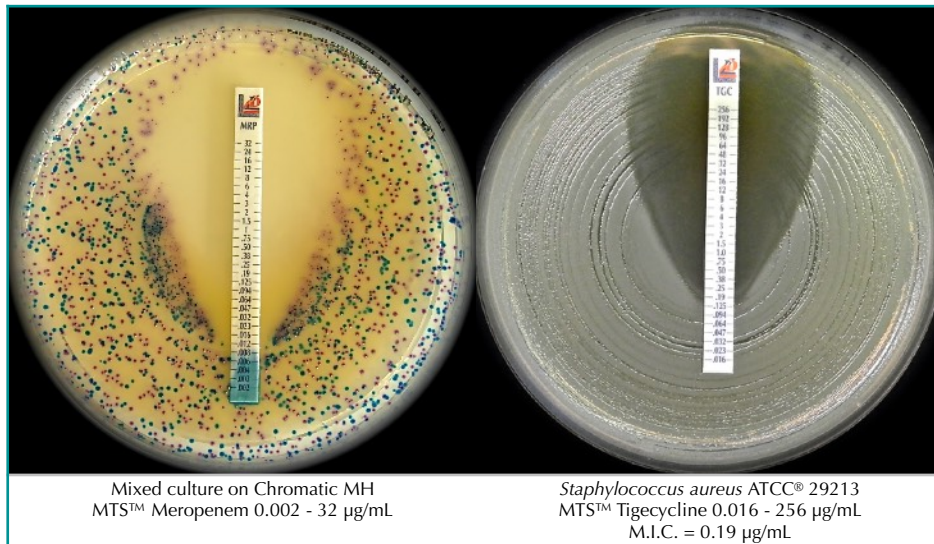
MTS™ is a quantitative assay for determining the Minimum Inhibitory Concentration (M.I.C.) of antimicrobial agents against microorganisms and for detecting the resistance mechanisms.

MTS™ are porous strips with special features (**European Patent**) that are impregnated with a predefined concentration gradient of antibiotic, across 15 two-fold dilutions of a conventional M.I.C. method.

On one side of the strip is indicated a M.I.C. scale in µg/mL and a code that identify the antimicrobial agent.

For ESBL, MBL, GRD, AmpC and KPC detection, the double-sided gradient carries the appropriate diagnostic reagents.

MTS™ are available in a large variety of configurations. Each configuration is available in packages of 10, 30 and 100 tests.

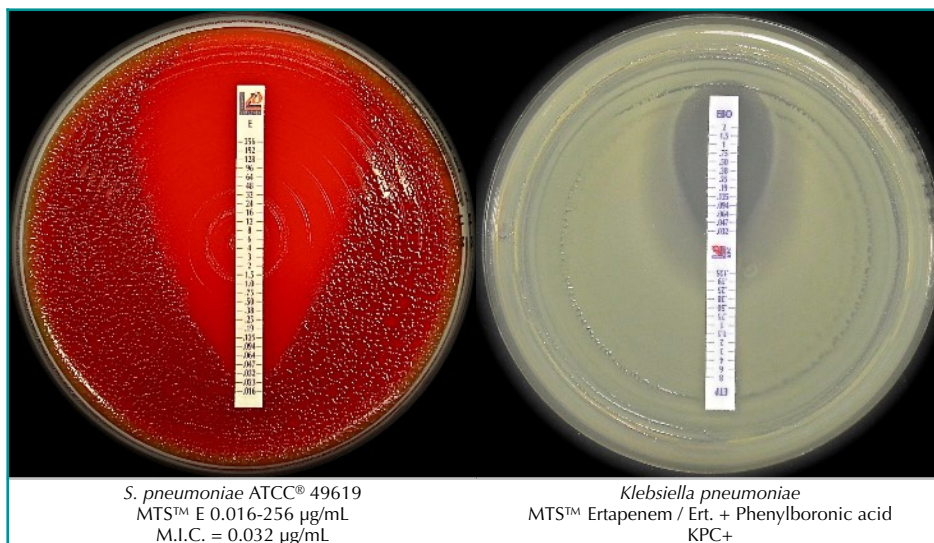


method principle

When the MTS™ is applied onto an inoculated agar surface, the preformed exponential gradient of antimicrobial agent is transferred to the agar matrix.

After 18 hours incubation or longer, a symmetrical inhibition ellipse centered along the strip is formed. The MIC is read directly from the scale in terms of µg/mL at the point where the edge of the inhibition ellipse intersects the MTS™.

Other growth/inhibition patterns may also be seen for resistance detection methods.



BIBLIOGRAPHY

- CLSI M100-Ed31, 2021. Performance Standards for Antimicrobial Susceptibility Testing.
- CLSI M07-Ed11, 2018. Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria That Grow Aerobically.
- CLSI M11-Ed9, 2018. Methods for Antimicrobial Susceptibility Testing of Anaerobic Bacteria.
- CLSI M60-Ed2, 2020. Performance Standards for Antimicrobial Susceptibility Testing of Yeasts.
- CLSI M27-Ed4, 2017. Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts.
- EUCAST. Breakpoint Tables for Interpretation of MICs and Zone Diameters. v. 11.0 (2021).

MTS™ for ANTIMICROBIAL susceptibility testing

Description		µg/mL	Code	Packaging	Ref.
MTS™	AMIKACIN	0.016 - 256	AK	10 strips 30 strips 100 strips	920181 92018 920180
MTS™	AMOXICILLIN	0.016 - 256	AML	10 strips 30 strips 100 strips	920211 92021 920210
MTS™	AMOXICILLIN*-CLAVULANIC ACID (2/1) <i>CLSI recommended</i>	0.016 - 256*	AUG	10 strips 30 strips 100 strips	920241 92024 920240
MTS™	AMOXICILLIN-CLAVULANIC ACID <i>EUCAST recommended</i>	0.016/2 - 256/2	AMC	10 strips 30 strips 100 strips	921801 92180 921800
MTS™	AMPICILLIN	0.016 - 256	AMP	10 strips 30 strips 100 strips	920031 92003 920030
MTS™	AMPICILLIN*-SULBACTAM (2/1) (FDA cleared) <i>CLSI recommended</i>	0.016 - 256*	AMS	10 strips 30 strips 100 strips	920271 92027 920270
MTS™	AMPICILLIN-SULBACTAM <i>EUCAST recommended</i>	0.016/4 - 256/4	SAM	10 strips 30 strips 100 strips	921811 92181 921810
MTS™	AZITHROMYCIN (FDA cleared)	0.016 - 256	AZM	10 strips 30 strips 100 strips	920301 92030 920300
MTS™	AZTREONAM	0.016 - 256	ATM	10 strips 30 strips 100 strips	920331 92033 920330
MTS™	AZTREONAM	0.064 - 1024	ATM	10 strips 30 strips 100 strips	921731 92173 921730
MTS™	BACITRACIN	0.016 - 256	BA	10 strips 30 strips 100 strips	920191 92019 920190
MTS™	CEFACLOR	0.016 - 256	CEC	10 strips 30 strips 100 strips	920361 92036 920360
MTS™	CEFAZOLIN	0.016 - 256	KZ	10 strips 30 strips 100 strips	921741 92174 921740
MTS™	CEFEPIME	0.002 - 32	FEP	10 strips 30 strips 100 strips	921271 92127 921270
MTS™	CEFEPIME	0.016 - 256	FEP	10 strips 30 strips 100 strips	921261 92126 921260
MTS™	CEFIDEROCOL	0.016 - 256	FDC	10 strips 30 strips 100 strips	920671 92067 920670
MTS™	CEFIXIME	0.016 - 256	CFM	10 strips 30 strips 100 strips	920601 92060 920600
MTS™	CEFOPERAZONE*-SULBACTAM (2/1)	0.016 - 256*	CPS	10 strips 30 strips 100 strips	920231 92023 920230
MTS™	CEFOTAXIME	0.002 - 32	CTX	10 strips 30 strips 100 strips	920071 92007 920070
MTS™	CEFOTAXIME	0.016 - 256	CTX	10 strips 30 strips 100 strips	920061 92006 920060
MTS™	CEFOTETAN	0.016 - 256	CTT	10 strips 30 strips 100 strips	920201 92020 920200
MTS™	CEFOXITIN	0.016 - 256	FOX	10 strips 30 strips 100 strips	920661 92066 920660
MTS™	CEFPIROME	0.016 - 256	CR	10 strips 30 strips 100 strips	920081 92008 920080
MTS™	CEFPODOXIME	0.016 - 256	PX	10 strips 30 strips 100 strips	920051 92005 920050
MTS™	CEFTAROLINE	0.002 - 32	CPT	10 strips 30 strips 100 strips	920561 92056 920560
MTS™	CEFTAROLINE	0.016 - 256	CPT	10 strips 30 strips 100 strips	920491 92049 920490
MTS™	CEFTAZIDIME (FDA cleared)	0.016 - 256	CAZ	10 strips 30 strips 100 strips	921381 92138 921380
MTS™	CEFTAZIDIME-AVIBACTAM (FDA cleared)	0.016/4 - 256/4	CZA	10 strips 30 strips 100 strips	921391 92139 921390
MTS™	CEFTIBUTEN	0.002 - 32	CTB	10 strips 30 strips 100 strips	920581 92058 920580
MTS™	CEFTIZOXIME	0.016 - 256	CZX	10 strips 30 strips 100 strips	920161 92016 920160

MTS™ for ANTIMICROBIAL susceptibility testing

Description		µg/mL	Code	Packaging	Ref.
MTS™	CEFTOBIPROLE	0.002 - 32	BPR	10 strips	921401
				30 strips	92140
				100 strips	921400
MTS™	CEFTOLOZANE-TAZOBACTAM (FDA cleared)	0.016/4 - 256/4	C/T	10 strips	921461
				30 strips	92146
				100 strips	921460
MTS™	CEFTRIAXONE	0.016 - 256	CRO	10 strips	920421
				30 strips	92042
				100 strips	920420
MTS™	CEFTRIAXONE	0.002 - 32	CRO	10 strips	920431
				30 strips	92043
				100 strips	920430
MTS™	CEFUROXIME	0.016 - 256	CXM	10 strips	921291
				30 strips	92129
				100 strips	921290
MTS™	CEPHALOTHIN	0.016 - 256	KF	10 strips	920391
				30 strips	92039
				100 strips	920390
MTS™	CHLORAMPHENICOL	0.016 - 256	C	10 strips	920751
				30 strips	92075
				100 strips	920750
MTS™	CIPROFLOXACIN (FDA cleared)	0.002 - 32	CIP	10 strips	920451
				30 strips	92045
				100 strips	920450
MTS™	CLARITHROMYCIN	0.016 - 256	CLR	10 strips	920481
				30 strips	92048
				100 strips	920480
MTS™	CLINDAMYCIN (FDA cleared)	0.016 - 256	CD	10 strips	920721
				30 strips	92072
				100 strips	920720
MTS™	CLOXACILLIN	0.016 - 256	CX	10 strips	920441
				30 strips	92044
				100 strips	920440
MTS™	COLISTIN	0.016 - 256	CS	10 strips	921411
				30 strips	92141
				100 strips	921410
MTS™	COLISTIN	0.064 - 1024	CS	10 strips	921421
				30 strips	92142
				100 strips	921420
MTS™	DALBAVANCIN (FDA cleared)	0.002 - 32	DAL	10 strips	921371
				30 strips	92137
				100 strips	921370
MTS™	DAPTOMYCIN (Includes Ca ²⁺)	0.016 - 256	DAP	10 strips	921451
				30 strips	92145
				100 strips	921450
MTS™	DELAFLORACIN (FDA cleared)	0.002 - 32	DLX	10 strips	920801
				30 strips	92080
				100 strips	920800
MTS™	DORIPENEM	0.002 - 32	DOR	10 strips	920401
				30 strips	92040
				100 strips	920400
MTS™	DOXYCYCLINE (FDA cleared)	0.016 - 256	DXT	10 strips	921561
				30 strips	92156
				100 strips	921560
MTS™	ENROFLOXACIN	0.002 - 32	ENR	10 strips	920131
				30 strips	92013
				100 strips	920130
MTS™	ERAVACYCLINE (FDA cleared)	0.002 - 32	ERV	10 strips	921041
				30 strips	92104
				100 strips	921040
MTS™	ERTAPENEM	0.002 - 32	ETP	10 strips	921571
				30 strips	92157
				100 strips	921570
MTS™	ERYTHROMYCIN (FDA cleared)	0.016 - 256	E	10 strips	920511
				30 strips	92051
				100 strips	920510
MTS™	FLORFENICOL	0.016 - 256	FFC	10 strips	920611
				30 strips	92061
				100 strips	920610
MTS™	FOSFOMYCIN (Includes Glucose-6-Phosphate)	0.016 - 256	FOS	10 strips	920781
				30 strips	92078
				100 strips	920780
MTS™	FOSFOMYCIN (Includes Glucose-6-Phosphate)	0.064 - 1024	FOS	10 strips	920791
				30 strips	92079
				100 strips	920790
MTS™	FOSMIDOMYCIN	0.016 - 256	FOM	10 strips	920501
				30 strips	92050
				100 strips	920500
MTS™	FUSIDIC ACID	0.016 - 256	FU	10 strips	920021
				30 strips	92002
				100 strips	920020
MTS™	GATIFLOXACIN	0.002 - 32	GAT	10 strips	920111
				30 strips	92011
				100 strips	920110
MTS™	GEMIFLOXACIN	0.002 - 32	GEM	10 strips	920351
				30 strips	92035
				100 strips	920350
MTS™	GENTAMICIN (FDA cleared)	0.016 - 256	CN	10 strips	920091
				30 strips	92009
				100 strips	920090

MTS™ for ANTIMICROBIAL susceptibility testing

Description		µg/mL	Code	Packaging	Ref.
MTS™	GENTAMICIN	0.064 - 1024	CN	10 strips	920101
				30 strips	92010
				100 strips	920100
MTS™	IMIPENEM	0.002 - 32	IMI	10 strips	920541
				30 strips	92054
				100 strips	920540
MTS™	IMIPENEM (FDA cleared)	0.016 - 256	IMI	10 strips	920681
				30 strips	92068
				100 strips	920680
MTS™	IMIPENEM-RELEBACTAM (FDA cleared)	0.002/4 - 32/4	I/R	10 strips	920761
				30 strips	92076
				100 strips	920760
MTS™	KANAMYCIN	0.016 - 256	K	10 strips	920341
				30 strips	92034
				100 strips	920340
MTS™	LEFAMULIN (FDA cleared)	0.016 - 256	LMU	10 strips	920641
				30 strips	92064
				100 strips	920640
MTS™	LEVOFLOXACIN (FDA cleared)	0.002 - 32	LEV	10 strips	920811
				30 strips	92081
				100 strips	920810
MTS™	LINEZOLID (FDA cleared)	0.016 - 256	LNZ	10 strips	921351
				30 strips	92135
				100 strips	921350
MTS™	MARBOFLOXACIN	0.002 - 32	MAR	10 strips	920621
				30 strips	92062
				100 strips	920620
MTS™	MECILLINAM	0.016 - 256	MEC	10 strips	920171
				30 strips	92017
				100 strips	920170
MTS™	MEROPENEM (FDA cleared)	0.002 - 32	MRP	10 strips	920841
				30 strips	92084
				100 strips	920840
MTS™	MEROPENEM	0.016 - 256	MRP	10 strips	920851
				30 strips	92085
				100 strips	920850
MTS™	MEROPENEM-VABORBACTAM (FDA cleared)	0.016/8 - 256/8	M/V	10 strips	920741
				30 strips	92074
				100 strips	920740
MTS™	METRONIDAZOLE	0.016 - 256	MTZ	10 strips	920871
				30 strips	92087
				100 strips	920870
MTS™	MOXIFLOXACIN	0.002 - 32	MXF	10 strips	920901
				30 strips	92090
				100 strips	920900
MTS™	MUPIROCIN	0.064 - 1024	MUP	10 strips	920381
				30 strips	92038
				100 strips	920380
MTS™	MINOCYCLINE	0.016 - 256	MN	10 strips	920321
				30 strips	92032
				100 strips	920320
MTS™	NALIDIXIC ACID	0.016 - 256	NA	10 strips	921321
				30 strips	92132
				100 strips	921320
MTS™	NETILMICIN	0.016 - 256	NET	10 strips	920931
				30 strips	92093
				100 strips	920930
MTS™	NORFLOXACIN	0.016 - 256	NOR	10 strips	920961
				30 strips	92096
				100 strips	920960
MTS™	NITROFURANTOIN	0.032 - 512	F	10 strips	920221
				30 strips	92022
				100 strips	920220
MTS™	OFLOXACIN	0.002 - 32	OFX	10 strips	920991
				30 strips	92099
				100 strips	920990
MTS™	OMADACYCLINE (FDA cleared)	0.002 - 32	OMC	10 strips	920711
				30 strips	92071
				100 strips	920710
MTS™	OXACILLIN	0.016 - 256	OX	10 strips	920151
				30 strips	92015
				100 strips	920150
MTS™	PENICILLIN G (FDA cleared)	0.002 - 32	P	10 strips	921031
				30 strips	92103
				100 strips	921030
MTS™	PENICILLIN G	0.016 - 256	P	10 strips	921021
				30 strips	92102
				100 strips	921020
MTS™	PIPERACILLIN	0.016 - 256	PIP	10 strips	921051
				30 strips	92105
				100 strips	921050
MTS™	PIPERACILLIN-TAZOBACTAM (FDA cleared) for Enterobacteriales, Pseudomonas, Acinetobacter	0.016/4 - 256/4	TZP	10 strips	921081
				30 strips	92108
				100 strips	921080
MTS™	PIPERACILLIN-TAZOBACTAM for Haemophilus, Anaerobes	0.064/4 - 1024/4	TZP	10 strips	921131
				30 strips	92113
				100 strips	921130
MTS™	PLAZOMICIN (FDA cleared)	0.016 - 256	PLZ	10 strips	920701
				30 strips	92070
				100 strips	920700

MTS™ for ANTIMICROBIAL susceptibility testing

Description	µg/mL	Code	Packaging	Ref.
MTS™ POLYMYXIN B	0.064 - 1024	PB	10 strips	920041
			30 strips	92004
			100 strips	920040
MTS™ QUINUPRISTIN-DALFOPRISTIN	0.002 - 32	QDA	10 strips	920261
			30 strips	92026
			100 strips	920260
MTS™ RIFAMPICIN	0.002 - 32	RD	10 strips	920011
			30 strips	92001
			100 strips	920010
MTS™ RIFAMPICIN	0.016 - 256	RD	10 strips	920251
			30 strips	92025
			100 strips	920250
MTS™ SPECTINOMYCIN	0.064 - 1024	SPC	10 strips	920141
			30 strips	92014
			100 strips	920140
MTS™ SPIRAMYCIN	0.002 - 32	SP	10 strips	920461
			30 strips	92046
			100 strips	920460
MTS™ STREPTOMYCIN	0.064 - 1024	S	10 strips	921111
			30 strips	92111
			100 strips	921110
MTS™ SULBACTAM	0.016 - 256	SUL	10 strips	920281
			30 strips	92028
			100 strips	920280
MTS™ SULFAMETHOXAZOLE	0.064 - 1024	SMX	10 strips	920311
			30 strips	92031
			100 strips	920310
MTS™ TEDIZOLID (FDA cleared)	0.002 - 32	TZD	10 strips	921361
			30 strips	92136
			100 strips	921360
MTS™ TEICOPLANIN	0.016 - 256	TEC	10 strips	920121
			30 strips	92012
			100 strips	920120
MTS™ TELAVANCIN	0.002 - 32	TLV	10 strips	920521
			30 strips	92052
			100 strips	920520
MTS™ TELAVANCIN (FDA cleared)	0.016 - 256	TLV	10 strips	920531
			30 strips	92053
			100 strips	920530
MTS™ TEMOCILLIN	0.064 - 1024	TMO	10 strips	920291
			30 strips	92029
			100 strips	920290
MTS™ TETRACYCLINE (FDA cleared)	0.016 - 256	TE	10 strips	921141
			30 strips	92114
			100 strips	921140
MTS™ TIAMULIN	0.002 - 32	TIA	10 strips	922001
			30 strips	92200
			100 strips	922000
MTS™ TICARCILLIN	0.016 - 256	TTC	10 strips	921831
			30 strips	92183
			100 strips	921830
MTS™ TICARCILLIN-CLAVULANIC ACID	0.016/2 - 256/2	TTC	10 strips	921171
			30 strips	92117
			100 strips	921170
MTS™ TIGECYCLINE	0.016 - 256	TGC	10 strips	921441
			30 strips	92144
			100 strips	921440
MTS™ TILMICOSIN	0.002 - 32	TIL	10 strips	922011
			30 strips	92201
			100 strips	922010
MTS™ TOBRAMYCIN	0.016 - 256	TOB	10 strips	921211
			30 strips	92121
			100 strips	921210
MTS™ TOBRAMYCIN	0.064 - 1024	TOB	10 strips	921201
			30 strips	92120
			100 strips	921200
MTS™ TRIMETHOPRIM	0.002 - 32	TM	10 strips	920371
			30 strips	92037
			100 strips	920370
MTS™ TRIMETHOPRIM*-SULFAMETHOXAZOLE (1/19)	0.002 - 32*	SXT	10 strips	921231
			30 strips	92123
			100 strips	921230
MTS™ VANCOMYCIN (FDA cleared)	0.016 - 256	VA	10 strips	920571
			30 strips	92057
			100 strips	920570


MTS™ for ANTIMYCOBACTERIAL susceptibility testing

Description	µg/mL	Code	Packaging	Ref.
MTS™ ETHAMBUTOL	0.016 - 256	EB	10 strips	921701
			30 strips	92170
			100 strips	921700
MTS™ ETHIONAMIDE	0.016 - 256	ET	10 strips	921721
			30 strips	92172
			100 strips	921720
MTS™ ISONIAZIDE	0.016 - 256	IZ	10 strips	921711
			30 strips	92171
			100 strips	921710

MTS™ for ANTIFUNGAL susceptibility testing

Description	µg/mL	Code	Packaging	Ref.
MTS™ AMPHOTERICIN B	0.002 - 32	AMB	10 strips 30 strips 100 strips	921531 92153 921530
MTS™ ANIDULAFUNGIN	0.002 - 32	AND	10 strips 30 strips 100 strips	921551 92155 921550
MTS™ CASPOFUNGIN	0.002 - 32	CAS	10 strips 30 strips 100 strips	921541 92154 921540
MTS™ FLUCONAZOLE	0.016 - 256	FLU	10 strips 30 strips 100 strips	921471 92147 921470
MTS™ FLUCYTOSINE	0.002 - 32	FC	10 strips 30 strips 100 strips	921491 92149 921490
MTS™ ISAVUCONAZOLE	0.002 - 32	IVU	10 strips 30 strips 100 strips	921841 92184 921840
MTS™ ITRACONAZOLE	0.002 - 32	ITC	10 strips 30 strips 100 strips	921481 92148 921480
MTS™ KETOCONAZOLE	0.002 - 32	KE	10 strips 30 strips 100 strips	921511 92151 921510
MTS™ MICA FUNGIN	0.002 - 32	MYC	10 strips 30 strips 100 strips	921821 92182 921820
MTS™ POSACONAZOLE	0.002 - 32	POS	10 strips 30 strips 100 strips	921521 92152 921520
MTS™ VORICONAZOLE	0.002 - 32	VO	10 strips 30 strips 100 strips	921501 92150 921500

MTS™ Synergy Application System (Patent granted in Europe, USA and Canada)

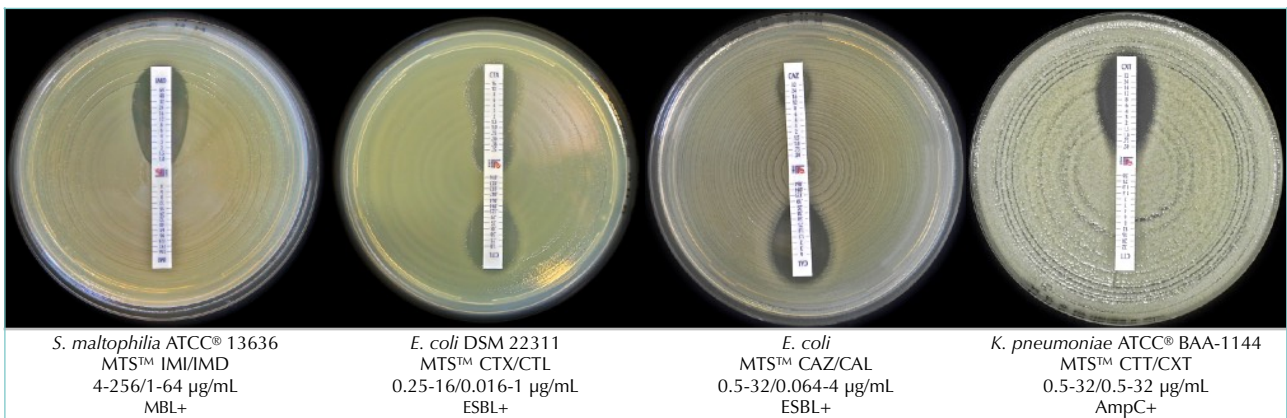
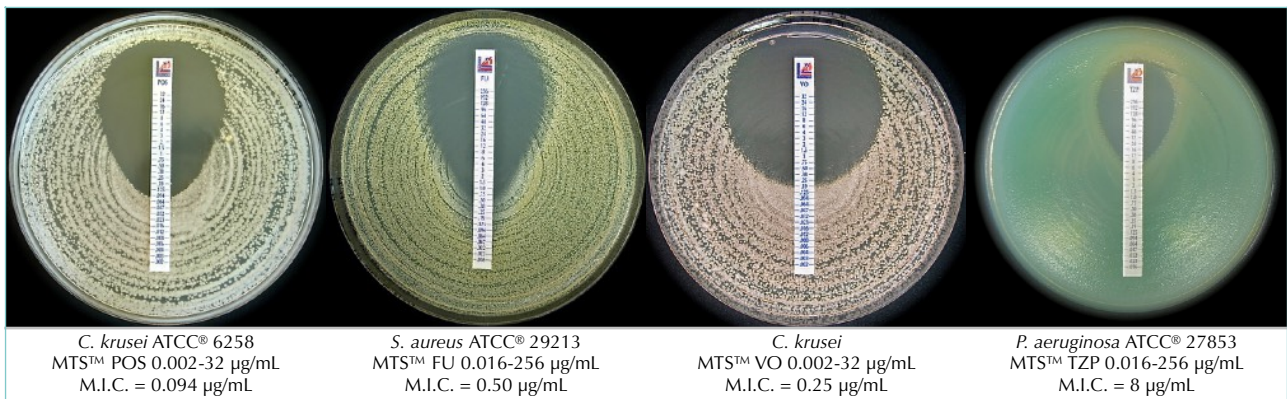
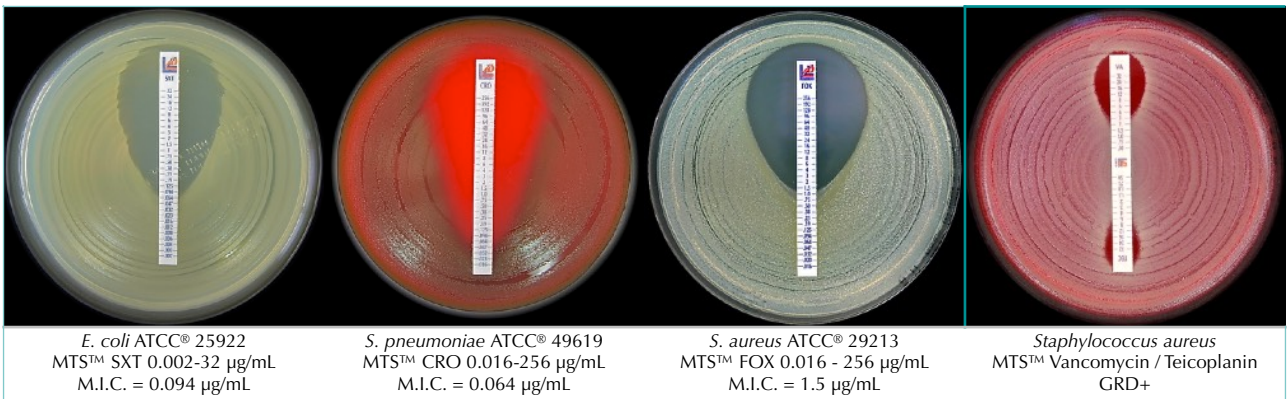
Description	Packaging	Ref.
 <p>MTS™ Synergy Applicator Platform</p>	1 unit	96860
MTS™ Synergy Delivery Tool	10 disposable applicators	96870

MTS™ for Antimicrobial Resistance Testing













































Description	µg/mL	Code	Packaging	Ref.
MTS™ CEFEPIME/CEFEPIME+CLAVULANIC ACID (4 µg/mL) for confirmation of Extended Spectrum Beta-Lactamase (ESBL)	0.25-16 / 0.064-4	FEP/FEL	10 strips 30 strips 100 strips	921611 92161 921610
MTS™ CEFOTAXIME/CEFOTAXIME+CLAVULANIC ACID (4 µg/mL) for confirmation of Extended Spectrum Beta-Lactamase (ESBL)	0.25-16 / 0.016-1	CTX/CTL	10 strips 30 strips 100 strips	921601 92160 921600
MTS™ CEFTAZIDIME/CEFTAZIDIME+CLAVULANIC ACID (4 µg/mL) for confirmation of Extended Spectrum Beta-Lactamase (ESBL)	0.5-32 / 0.064-4	CAZ/CAL	10 strips 30 strips 100 strips	921591 92159 921590
MTS™ IMIPENEM / IMIPENEM + EDTA for detection of Metallo Beta-Lactamase (MBL)	4-256 / 1-64	IMI/IMD	10 strips 30 strips 100 strips	921621 92162 921620
MTS™ IMIPENEM / IMIPENEM + EDTA for detection of Metallo Beta-Lactamase (MBL)	0.125-8 / 0.032-2	IMI/IMD	10 strips 30 strips 100 strips	921661 92166 921660
MTS™ MEROPENEM / MEROPENEM + EDTA for detection of Metallo Beta-Lactamase (MBL)	0.125-8 / 0.032-2	MRP/MRD	10 strips 30 strips 100 strips	921651 92165 921650
MTS™ MEROPENEM / MEROPENEM + PHENYLBORONIC ACID for KPC detection	0.125-8 / 0.032-2	MRP/MBO	10 strips 30 strips 100 strips	921671 92167 921670
MTS™ ERTAPENEM / ERTAPENEM + PHENYLBORONIC ACID for KPC detection	0.125-8 / 0.032-2	ETP/EBO	10 strips 30 strips 100 strips	921681 92168 921680
MTS™ CEFOTETAN / CEFOTETAN+CLOXACILLIN for AmpC detection	0.5-32 / 0.5-32	CTT/CXT	10 strips 30 strips 100 strips	921641 92164 921640
MTS™ ERTAPENEM / ERTAPENEM + CLOXACILLIN for AmpC detection	0.125-8 / 0.032-2	ETP/ECX	10 strips 30 strips 100 strips	921691 92169 921690
MTS™ VANCOMYCIN / TEICOPLANIN for detection of Glycopeptide Resistance (GRD)	0.5-32 / 0.5-32	VA/TEC	10 strips 30 strips 100 strips	921631 92163 921630

Ready to use culture media

Description	Format	Packaging	Ref.
MUELLER HINTON AGAR II for antimicrobial susceptibility testing of non-fastidious organisms.	90 mm 140 mm	20 plates 10 plates	10031 10231
MUELLER HINTON AGAR II + SHEEP BLOOD 5% for antimicrobial susceptibility testing of fastidious organisms.	90 mm 140 mm	20 plates 10 plates	10131 11231
MUELLER HINTON FASTIDIOUS AGAR (Horse blood 5% + 20 mg/L β -NAD) EUCAST recommended: for antimicrobial susceptibility testing of <i>Streptococcus</i> spp., <i>Haemophilus</i> spp., and some other fastidious organisms.	90 mm 140 mm	20 plates 10 plates	10132 11132
MUELLER HINTON AGAR II + 2% NaCl for antimicrobial susceptibility testing of staphylococci with Oxacillin.	90 mm	20 plates	11206
CHROMATIC MH Chromogenic medium for the preliminary identification and susceptibility testing of bacteria directly from clinical and environmental specimens.	90 mm 140 mm	20 plates 10 plates	11618 10246
BRUCELLA BLOOD AGAR with HEMIN AND VITAMIN K1 for antimicrobial susceptibility testing of anaerobic bacteria.	90 mm	20 plates	10245
SCHADLER K AGAR (SHEEP BLOOD 5%) for antimicrobial susceptibility testing of anaerobic bacteria.	90 mm	20 plates	11065
HAEMOPHILUS TEST AGAR for <i>Haemophilus</i> spp. susceptibility testing.	90 mm	20 plates	10080
MIDDLEBROOK 7H11 AGAR for antimicrobial susceptibility testing of mycobacteria.	90 mm	20 plates	10416
R.P.M.I. AGAR (2% glucose + MOPS) for antifungal susceptibility testing.	90 mm 140 mm	20 plates 10 plates	11509 10233



Contact your local dealer or Liofilchem headquarters for MTS™ availability.

 Argentina MedicaTec S.R.L. Tel +54 11 4554.4600 Fax +54 11 4555.0416 www.medica-tec.com	 France i2a Tel +33467504800 Fax +33467170906 www.i2a.info	 New Zealand Point View Laboratories Ltd Tel +64 9 265 2884 Fax +64 9 265 0776 info@pointviewlaboratories.com	 Slovenia Mediline d.o.o. Tel +38618308040 Fax +38618308070 www.mediline.si
 Australia Integrated Sciences Tel.: +61 2 9417 7866 Fax: +61 2 9417 5066 tech@integratedsci.com.au	 Germany bestbion dx GmbH Tel +49 2234 987 95 0 Fax +49 2234 987 95 29 service@bestbion.com	 Norway Montebello Diagnostics AS Tel 22 14 14 90 Fax 22 14 44 90 www.montebello.no	 South Africa Davies Diagnostics (PTY Ltd) Tel +27117777600 Fax +27117876917 www.daviesdiagnostics.co.za
 Austria IVD Uhl-Michelin e.U. Tel.:+43 (0) 69914616219 Fax: +43 (0) 463 265526 6222 werner.uhl-michelin@ivd.at	 Greece Varelas S.A. Tel +302105281920 Fax +302105220926 microbiology@varelas.gr	 Paraguay GT Scientific S.A. Tel 595 21 200134 Fax 595 21 221339 ventas@gtscientific.com.py	 Spain Werfen España, SAU Tel 902203090 Fax 902223366 www.werfen.com
 Belgium ELITech Group B.V. Tel +32 (0)92820531 Fax +32 (0)92820532 c.notte@elitechgroup.com	 Hong Kong Bio-Gene Technology Ltd. Tel +85226466101 Fax +85226868806 info@bio-gene.com.hk	 Poland Argenta Spółka z ograniczoną odpowiedzialnością Sp.k. tel. +48 618474637 fax +48 618483477 argenta@argenta.com.pl	 Sweden Biotech-IgG www.biotech-igg.com orders@biotech-igg.com
 Brazil Plast Labor Tel (21) 25010888 (21) 25011905 (21) 3273 9105 . (21) 2599 8419 plabor@plastlabor.com.br	 Hungary Frank Diagnosztika Kft. Tel 388-3114, 367-2430 Fax 368-5721 www.frank-diagn.hu	 Portugal Werfen Portugal, LDA Tel +351 214161288 Fax +351 214176484 MTS™ product range only	 Switzerland Apteq AG Tel: +41417400814 Fax: +41417403488 www.apteq.ch
 Bulgaria Elta 90M Tel +35929839649 Fax +35929832211 www.elta90.com	 Ireland Launch Diagnostics Ireland Tel +3530719151122 Fax +3530719152277 desruddy@launchdiagnostics.ie	 Qatar Micro Lab Medical Mob: +974 55050342 Fax: +974 40391713 sales@mlmqatar.com	 Thailand Envimed Co., Ltd. Tel 66-2-434-0391 Fax 66-2-435-5962 envimed@truemail.co.th
 Chile Medica Tec de Chile S.A. Tel +56 (02) 4261830 fax +56 (02) 4261835 mrojas@medica-tec.cl	 Italy Liofilchem Tel +39 0858930745 Fax +39 0858930330 www.liofilchem.com	 Russia Agros-International, Zao Tel +7 (812) 303-8234 Fax +7 (812) 303-8236 agros@agros-int.com	 Turkey Kemiteks Kimyevi Mad. Tic. Ltd. Sti. Tel +90 216 449 58 70 Fax +90 216 449 58 72 www.kemitekskimya.com.tr
 Czech Republic BioVendor Tel +420549124123 Fax +420549211465 www.biovendor.cz	 Lithuania Biometrija tel +37 052481824 fax +37 052400085 www.biometrija.lt	 Saudi Arabia Gamsco Tel +966-3-8394085 Fax +966-3-8394084 drmalyousef@yahoo.com	 Ukraine Ukrbio Ltd. Tel +38 067 240 63 29 Fax +38 044 205 56 21 office.ukrbio@gmail.com
 Denmark Biotech-IgG www.biotech-igg.com orders@biotech-igg.com	 Malaysia Premier Diagnostics Sdn Bhd Tel +603-5191 3943 Fax +603-5191 3945 info-pd@premierdiagnostics.com.my	 Serbia Uni-Chem Tel +381113282986 Fax +381113281205 www.uni-chem.rs	 United Kingdom Launch Diagnostics Ltd Tel +44(0)1474874426 Fax +44(0)1474872388 enquiries@launchdiagnostics.com
 Estonia Borsa Eesti OÜ Tel +3725050555 Fax +3726556158 borsa@borsa.ee	 Mexico Abalat, S.A. de C.V. Tel (01 55) 8000-1500 www.abalat.com.mx	 Singapore Premier Diagnostics Pte Ltd Tel +65 6220 3221 Fax +65 6220 9457 pdsingapore8@gmail.com	 United States Liofilchem, Inc. tel 781-902-0312 fax 781-902-0397 orders@liofilchem.us
 Finland Immuno Diagnostic Oy Tel +3583615370 Fax +35836822039 www.immunodiagnostic.fi	 Netherlands EWC Diagnostics B.V. Tel +31 (0)6 15606050 carin.smale@ewcdiagnostics.com www.ewcdiagnostics.com	 Slovakia Bio G spol. s r.o. Tel +421245526381 Fax +421245526382 www.biog.sk	 Vietnam Vietlab Co., Ltd. tel +84 2433113236 Fax : +844 33113239 info@vietlab.vn

 **Liofilchem®**
 Via Scozia, Zona Industriale, 64026 Roseto degli Abruzzi (TE) Italy
 Tel. +39 0858930745 Fax +39 0858930330 www.liofilchem.com



In USA, available for products noted as "FDA Cleared" in the product list.

ref. 6553003
 Rev.54
 5 Nov 2021



Liofilchem® MTS™



SUMMARY AND EXPLANATION OF THE TEST

The Liofilchem® MTS™ (MIC Test Strip) are gradient tests used to determine the minimum inhibitory concentration (MIC) of select organisms to indicate appropriate patient treatment and for identifying resistance patterns. The MIC is the minimum inhibitory concentration of an antimicrobial drug that will inhibit the growth of microbes under standardized *in vitro* conditions. Broth and agar dilution MIC procedures based on two-fold serial dilutions of antibiotics are the reference methodologies; expected reproducibility of which is within ± 1 two-fold dilution.

PRINCIPLE OF THE METHOD

MTS™ are made of special high quality paper impregnated with a predefined concentration gradient of antibiotic, across 15 two-fold dilutions like those of a conventional MIC method. When the MTS™ is applied onto an inoculated agar surface, the preformed exponential gradient of antimicrobial agent diffuses into the agar for over an hour. After incubation, a symmetrical inhibition ellipse centered along the strip is formed. The MIC is read directly from the scale in terms of $\mu\text{g/mL}$ at the point where the edge of the inhibition ellipse intersects the strip.

For detection of resistance mechanisms such as extended-spectrum beta-lactamase (ESBL) and carbapenemase, double-sided gradient MTS™ carrier the appropriate diagnostic reagents. Resistant bacteria are identified by comparing the inhibition on both sides of the strip.

REAGENTS

MTS™ is supplied in 3 different packaging options (no additional reagents are included):

- The 10-test pack contains 10 strips individually packed in desiccant envelopes and an instruction sheet.
- The 30-test pack contains 30 strips individually packed in desiccant envelopes and an instruction sheet.
- The 100-test pack contains 10 desiccant envelopes, each containing 10 strips, an instruction sheet and a storage tube.

DIRECTIONS FOR USE

Storage

Unopened foil packages: On receipt, store MTS™ at -20°C to $+8^{\circ}\text{C}$ until the given expiry date. Some MTS™ (e.g. carbapenems) should be stored frozen at -20°C . Check the drug label for the specific storage temperature. Products can always be stored lower than the maximum temperature specified.

Opened foil packages: Leftover MTS™ from an opened foil package (valid for 100 strip pack only, as the 10 and 30 strip packs contain individually packed strips) must be stored at $2-8^{\circ}\text{C}$ in the airtight tube, containing desiccant, provided in the pack for no more than 7 days. Do not store near sources of heat and do not expose to excessive temperature variations.

Handling

Before using the MTS™ from an unopened package, visually inspect to ensure the package is intact. Do not use the strips if the package has been damaged. When removed from the refrigerator/freezer, allow the package or storage container to reach room temperature for about 30 minutes. Moisture condensing on the outer surface must evaporate completely before opening the package.

Precautions

The MTS™ is not classified as being hazardous according to current regulations. The MTS™ is a disposable product. The MTS™ is only for diagnostic *in vitro* use and is intended for professional use. They must be used in the laboratory by properly trained operators using approved aseptic and safety methods for pathogenic agents.

Materials Required but Not Provided:

- Agar plate medium (validated by the media manufacturer for use with antimicrobial susceptibility testing, 90 or 150 mm plates)
- Suspension medium
- McFarland turbidity standard
- Sterile loops, swabs (not too tightly spun), test tubes, pipettes and scissors
- Forceps
- Incubator ($35 \pm 2^{\circ}\text{C}$)
- Quality control organisms (CultiControl™)
- Additional technical information from www.liofilchem.com

NOTE: The medium to be used as well as the inoculum suspension will depend on the organism under investigation, see the MTS™ Application Guide for specific recommendations.

Inoculum Preparation

Suspend well-isolated colonies from an overnight agar plate into the suspension medium to achieve the recommended McFarland standard. If the inoculum concentration is correct, a confluent lawn of growth will be obtained after incubation. If insufficient growth occurs, the testing should be repeated.

McFarland turbidity standards do not guarantee the correct number of viable cells in the suspension. In order to verify that your procedure gives the correct inoculum density in terms of CFU/mL performing regular colony counts is recommended. An acceptable inoculum should give approximately $1-2 \times 10^8$ CFU/mL.

Inoculation

Dip a sterile swab in the broth culture or in a diluted form thereof and squeeze it on the wall of the test tube to eliminate excess liquid. Streak the swab over the entire sterile agar surface. Repeat this procedure by streaking 2 more times, rotating the plate approximately 60 degrees each time to ensure an even distribution of inoculum. Allow excess moisture to be absorbed so that the surface is completely dry before applying MTS™.

Use well-defined, high quality media that supports good growth. The brand chosen should have good batch-to-batch reproducibility to ensure that accurate and reliable MIC values are obtained.

Ensure that the agar plate has depth of 4.0 ± 0.5 mm, pH 7.3 ± 0.1 and fulfills quality specifications.

Application

Apply the strip to the agar surface with the scale facing upwards and code of the strip to the outside of the plate, pressing it with a sterile forceps on the surface of the agar and ensure that whole length of the antibiotic gradient is in complete contact with the agar surface. Once applied, do not move the strip.

Incubation

Incubate the agar plates in an inverted position at the appropriate temperature, atmosphere and time. Refer to the MTS™ Application Guide for specific incubation instructions.

MTS™ testing conditions for most common organisms are shown in the following guide. For further information on specific applications, please consult MTS™ documents available at www.liofilchem.com/MTS

Organism group	Agar media	Inoculum		Incubation		
		Suspension	Turbidity	Temperature	Atmosphere ⁶	Time ⁸
Aerobes	Mueller Hinton 2, 3, 4, 5	0.85% NaCl	0.5 McFarland (1 if mucoid)	35 ± 2°C	ambient	16-20 hours ⁹
ORSA/ORSE	Mueller Hinton + 2% NaCl (MTS™ oxacillin only)	0.85% NaCl	0.5 McFarland	35 ± 2°C	ambient	24 hours ORSA 48 hours ORSE
Anaerobes	Brucella Blood	Brucella broth or Mueller Hinton broth	1 McFarland	35 ± 2°C	80-85 N ₂ / 5-10% CO ₂ / 10% H ₂ ⁷	24-48-72 hours depending on the species
<i>Haemophilus influenzae</i>	HTM (CLSI) MH-F (EUCAST)	Mueller Hinton broth or HTM broth	0.5 McFarland (1 if mucoid)	35 ± 2°C	5% CO ₂	20-24 hours
<i>Streptococcus pneumoniae</i> and <i>Streptococci</i> ¹	Mueller Hinton + 5% blood (CLSI) MH-F (EUCAST)	Mueller Hinton broth	0.5 McFarland (1 if mucoid)	35 ± 2°C	5% CO ₂	20-24 hours
<i>Neisseria gonorrhoeae</i>	GC-agar base + defined supplements	Mueller Hinton broth	0.5 McFarland	35 ± 2°C	5% CO ₂	20-24 hours

¹ Includes beta-haemolytic Streptococci groups A, B, C and G and Viridans group *S. mutant*, *S. mitis*, *S. sanguis* and *S. bovis*.

² For trimethoprim and trimethoprim/sulfamethoxazole, ensure that the brand and batch of agar has a low thymine/thymidine content to minimise antagonism of the activity of trimethoprim and sulphonamides.

³ The inherent calcium content in Mueller Hinton agar may vary between brands and batch to batch. Perform quality control of agar plates on a batch to batch basis to qualify it for use, particularly for testing of daptomycin.

⁴ The inherent manganese content in Mueller Hinton agar may vary between brands and batch to batch. Perform quality control of agar plates on a batch to batch basis to qualify it for use, particularly for testing of tigecycline.

⁵ The performances of macrolides and aminoglycosides MTS™ with aerobe microorganisms have been validated and are guaranteed with the **Liofilchem** and **BBL/BD** Mueller Hinton II Agar only.

⁶ The activity of macrolides, lincosamides, streptogramins, aminoglycosides, quinolones, penicillins and tetracyclines can be affected by the pH decrease consequent to the incubation in 5% CO₂ for fastidious organisms. Please be aware that differences in results can be obtained between systems that are incubated in ambient and in CO₂-enriched air.

⁷ Ensure that an efficient anaerobic system is used to achieve rapid anaerobiosis to avoid false resistant results with metronidazole.

⁸ Ensure the agar plate is incubated for the recommended period before reading, especially for delayed expression of resistance and slow growing and fastidious organisms.

⁹ MTS™ vancomycin results are interpreted at 24 hours of incubation for Staphylococci and Enterococci.

Reading the MIC

After the required incubation period, and only when an even lawn of growth is distinctly visible, read the MIC value where the relevant inhibition ellipse intersects the strip. Do not read the plate if the culture appears mixed or if the lawn of growth is too light or too heavy.

NOTES:

- Antimicrobial drugs can be either “-static” (e.g. bacteriostatic, fungistatic) or “-cidal” in their interactions with target organisms and this needs to be considered for determining correctly the MIC endpoint. For bactericidal drugs, e.g. beta-lactams, read the MIC at the point of complete inhibition of all growth. Haze and macrocolonies or microcolonies within 3 mm from the strip should be read as growth. For bacteriostatic drugs, e.g. trimethoprim-sulfamethoxazole, in case of trailing endpoints, read at 80% inhibition, i.e. the first point of significant inhibition as judged by the naked eye. Consult the MTS30 document for more information.
- Growth along the entire gradient i.e. no inhibition ellipse indicates that the value is greater than or equal to (\geq) the highest value on the scale. An inhibition ellipse that intersects below the lower end of the scale is read as less than ($<$) the lowest value. Intersection between two scale segments should be rounded up to the higher value. An MIC of 0.125 $\mu\text{g}/\text{mL}$ is considered the same as 0.12 $\mu\text{g}/\text{mL}$ for reporting purposes. See the appropriate MTS™ technical sheets for example specific drug-organism photographs. Also consult the MTS™ Photographic Guide.
- Excessively wet plates prior to inoculation, insufficient drying before applying strips and/or unevenly streaked surfaces may give non confluent growth or jagged ellipse edges. Repeat the test if MIC endpoints are difficult to read. In the case of uneven MIC intersections, read the higher value. Repeat the test if the discrepancy is >1 dilution.
- Occasionally, certain antimicrobial agent/microorganism combinations may give unusual results. In these cases, judgment of the MIC endpoint may be difficult for the inexperienced personnel. However, individuals can be trained through regular use of quality control strains, MTS™ reading guides and comparison with experienced personnel to correctly assess MIC endpoints.

Result Interpretation

To categorize the result, typically as susceptible, intermediate or resistant, refer to current MIC breakpoints published by the CLSI, EUCAST and/or your national reference group. An overview of CLSI and EUCAST interpretative criteria is provided in **Table 1** (online). Since MTS™ generates MIC values which fall between two-fold dilutions for interpretation, an MTS™ MIC value which falls between standard two-fold dilutions must be rounded up to the next standard upper two fold value before categorization. For example a *S. aureus* vancomycin MIC of 1.5 µg/mL is reported as 2 µg/mL.

For resistance detection tests, which are phenotypic confirmation methods not intended for standard MIC determination, read the MTS™ result according to the specific instructions in the product technical sheet.

NOTES:

- As with all AST data, MTS™ results are *in vitro* values only and may provide an indication of the organism's potential *in vivo* susceptibility. The use of results to guide therapy selection must be the sole decision and responsibility of the attending physician. Their judgement should be based on the medical history and knowledge of the patient, pharmacokinetics/pharmacodynamics of the antimicrobial agent, and clinical experience in treating infections caused by the particular microbial pathogen. The drug, dose and dosing regimen must also be considered.
- For details of specific interpretive limitations and/or limitations on the clinical use of an antimicrobial agent in various therapeutic situations, please refer to the tables and footnotes of MIC interpretive standards in the latest CLSI and EUCAST documents.

Eliminating Used Material

After use, MTS™ and the material that comes into contact with the sample must be decontaminated and disposed of in accordance with current laboratory techniques for the decontamination and disposal of potentially infected material.

QUALITY CONTROL

To check the performance of the MTS™ result, test the quality control strain(s) as shown in **Table 1** (online). Patient isolate results are considered satisfactory if the quality control result(s) fall within the expected range(s). Patient isolate results should not be reported if the quality control results are outside of this stated QC range. MIC results for a QC strain that fall a half dilution below the lower QC limit should be rounded up to the next upper two-fold value which would establish QC compliance. MIC results that are a half dilution above the upper limit would be rounded up to the next upper two fold value which would result in non-QC compliance.

LIMITATIONS

Refer to the drug-specific MTS™ Technical Sheet.

EXPECTED VALUES

Expected results for susceptibility tests will vary based on location and institution. Organism resistance patterns will be directly related to the population of organisms at each site.











PERFORMANCE CHARACTERISTICS

Refer to the drug-specific MTS™ Technical Sheet.

REFERENCES

- Clinical and Laboratory Standards Institute. Performance Standards for Antimicrobial Susceptibility Testing; latest edition. CLSI supplement M100.
- Clinical and Laboratory Standards Institute. Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria That Grow Aerobically; latest edition. CLSI standard M07.
- Clinical and Laboratory Standards Institute. Methods for Dilution Antimicrobial Susceptibility Testing of Anaerobic Bacteria; Approved Standard, latest edition. CLSI document M11.
- Clinical and Laboratory Standards Institute. Performance Standards for Antifungal Susceptibility Testing of Yeasts, latest edition. CLSI supplement M60.
- Clinical and Laboratory Standards Institute. Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; latest edition. CLSI standard M27.
- Clinical and Laboratory Standards Institute. Performance Standards for Antifungal Susceptibility Testing of Filamentous Fungi; latest edition. CLSI supplement M61.
- Clinical and Laboratory Standards Institute. Reference Method for Broth Dilution Antifungal Susceptibility Testing of Filamentous Fungi; latest edition. CLSI standard M38.
- The European Committee on Antimicrobial Susceptibility Testing. Breakpoint Tables for Interpretation of MICs and Zone Diameters; latest version.
- The European Committee on Antimicrobial Susceptibility Testing. Antifungal Agents. Breakpoint Tables for Interpretation of MICs; latest version. EUCAST documents available at www.eucast.org

GLOSSARY OF TERMS

	Do not reuse		Batch code		Manufacturer		In vitro diagnostic medical device		Upper limit of temperature
	Use by		Catalog number		Contains sufficient for <n> tests		Temperature limitation		Consult instructions for use

For more information on specific applications, drugs and drug-organism combinations, visit:

Liofilchem.com/MTS

Liofilchem®, the Liofilchem company logo and the MTS logo are registered trademarks of LIOFILCHEM s.r.l.

© Copyright LIOFILCHEM 2020



LIOFILCHEM® s.r.l.

Via Scozia zona ind.le, 64026 Roseto degli Abruzzi (Te) Italy
Tel. +39 0858930745 Fax +39 0858930330 www.liofilchem.com



In USA, available for products noted as "FDA Cleared" in the MTS™ Catalog.

**MIC Test Strip
International Patent**



MIC Test Strip

Quantitative assay for determining the Minimum Inhibitory Concentration (MIC)

Contents	Page
Italiano	1
English	2
Français	3
Deutsch	4
Español	5
Português	6
Norsk	7
Slovenčina	8
Česky	9
Dansk	10
Ελληνικά	11
Svenska	12
Bibliography	13
Product list	15
Links to technical sheets	21

F00023
Rev.32 / 30.11.2017

MIC Test Strip, International Patent

Liofilchem® and the Liofilchem company logo are registered trademarks of LIOFILCHEM s.r.l.

© Copyright LIOFILCHEM 2017



LIOFILCHEM® s.r.l.

Via Scozia zona ind.le, 64026 Roseto degli Abruzzi (Te) Italy
Tel. +39 0858930745 Fax +39 0858930330 www.liofilchem.net



In USA, available for products
noted as "FDA Cleared" in the
product list.

liofilchem@liofilchem.net

DESCRIZIONE

MIC Test Strip è un metodo quantitativo per la determinazione della Concentrazione Minima Inibente (CMI) di un singolo agente antimicrobico nei confronti dei microrganismi e per la determinazione dei meccanismi di resistenza.

MIC Test Strip sono strisce di carta, con caratteristiche peculiari*, impregnate con un gradiente di concentrazioni predefinite dell'agente antibatterico, costituito da 15 diluizioni comprese nell'intervallo delle diluizioni usato nei metodi convenzionali per la determinazione della CMI. Su un lato della striscia è riportata una scala di lettura graduata, espressa in $\mu\text{g/mL}$ e una sigla che specifica il tipo di antimicrobico. Per la rilevazione delle β -lattamasi a spettro allargato (ESBL) e delle metallo β -lattamasi (MBL), sono presenti sulla striscia due gradienti distinti di concentrazione dei reagenti diagnostici appropriati.

MIC Test Strip sono previsti in una larga varietà di configurazioni. Ciascuna configurazione è disponibile nella variante da 10, 30 e 100 test.

CONTENUTO DELLE CONFEZIONI

La confezione da 10 test contiene 10 bustine con film essiccante, ognuna contenente 1 strip, e un foglio istruzioni. La confezione da 30 test contiene 30 bustine con film essiccante, ognuna contenente 1 strip, e un foglio istruzioni. La confezione da 100 test contiene 10 bustine con film essiccante, ognuna contenente 10 strip, e un foglio istruzioni. Ciascuna confezione da 100 test contiene inoltre una provetta con essiccatore.

PRINCIPIO DEL METODO

Quando la striscia di **MIC Test Strip** è applicata sulla superficie inoculata di un terreno agarizzato in piastra, il gradiente predefinito ed esponenziale dell'agente antimicrobico è rilasciato dalla striscia al terreno agarizzato. Dopo incubazione di 18 ore o più, si può osservare una zona di inibizione ellittica, simmetrica e centrata lungo la striscia.

Il valore di CMI, espressa in $\mu\text{g/mL}$, viene letto nel punto di intersezione tra il bordo dell'ellisse di inibizione e la striscia **MIC Test Strip**. Con i metodi di determinazione delle resistenze si potrebbero osservare altri profili di crescita/inibizione.

COMPOSIZIONE

Gli strip sono preparati con carta di alta qualità, e ciascun strip è impregnato con un gradiente di concentrazioni predefinite costituito da 15 diluizioni dell'agente antibatterico.

RACCOLTA E CONSERVAZIONE DEI CAMPIONI

Le colonie da sottoporre al test di valutazione della Concentrazione Minima Inibente (CMI) vengono riprese dai terreni colturali seminati preventivamente con il campione in esame.

In caso di colonie miste è necessario procedere alla purificazione dei ceppi batterici prima della semina.

PROCEDURA DEL TEST

1. Prima di aprire la bustina attendere che raggiunga la temperatura ambiente per minimizzare la formazione di condensa sullo strip.
2. Toccare 4-5 colonie ben isolate e morfologicamente simili, da un terreno di coltura e sospenderle in 5 mL di un brodo colturale appropriato. Per microrganismi esigenti si raccomanda di sospendere le colonie in brodo ed utilizzare la sospensione entro 15 minuti.
3. Confrontare la torbidità della sospensione con lo standard McFarland appropriato.
4. Immergere un tampone sterile nella brodocoltura o in una sua diluizione opportuna e spremere sulla parete della provetta per eliminare l'eccesso di liquido.
5. Strisciare sulla superficie del terreno, contenuto in piastra, in modo da produrre una crescita omogenea; prima di deporre le strisce lasciare che l'umidità in eccesso venga assorbita ed assicurarsi che la superficie dell'agar sia completamente asciutta.

6. Depositare lo strip, assicurandosi che la scala graduata con i valori di CMI sia rivolta verso l'alto e il codice dell'antibiotico verso l'esterno della piastra; esercitare pressione con una pinzetta sterile sulla superficie dell'agar inoculata ed assicurarsi che la striscia sia a contatto con la superficie dell'agar per tutta la sua lunghezza.

Non spostare le strisce di **MIC Test Strip** una volta deposte.

7. Incubare la piastra in posizione rovesciata e nelle condizioni appropriate del microrganismo in esame.

8. Riporre gli strip non utilizzati all'interno della provetta contenuta nella confezione.

INTERPRETAZIONE DEI RISULTATI

Al termine dell'incubazione leggere i valori di CMI nel punto in cui il margine dell'ellisse di inibizione interseca la striscia (l'intersezione tra i due lati dello strip dovrebbe essere arrotondata al valore più alto).

Per l'interpretazione delle CMI ottenute con **MIC Test Strip** possono essere utilizzati i valori di CMI adottati da CLSI o EUCAST.

Nel caso di valori intermedi arrotondare sempre al valore di CMI superiore prima di stabilire una categoria di sensibilità. Nella tabella n°1 è riportato uno schema dei criteri di interpretazione di CLSI ed EUCAST.

INTERPRETAZIONE CLINICA

Il test **MIC Test Strip** eseguito *in vitro* non può riprodurre esattamente le condizioni che si trovano *in vivo*, ma può fornire solo una indicazione della potenziale sensibilità *in vivo* del microrganismo. La scelta finale della terapia da somministrare al paziente spetta al clinico che è in possesso di tutti i dati riguardanti il paziente stesso.

CONTROLLO QUALITÀ

Ogni lotto di **MIC Test Strip** viene sottoposto al controllo di qualità, in accordo alle norme CLSI, utilizzando i ceppi batterici indicati in tabella n°1.

PRECAUZIONI

Il prodotto **MIC Test Strip** non è classificabile come pericoloso ai sensi della legislazione vigente, ma rientra nello specifico campo di applicazione della normativa relativa all'obbligo di fornitura di scheda di sicurezza, perché può causare fenomeni di sensibilizzazione in soggetti sensibili in caso di contatto con la pelle.

MIC Test Strip è un dispositivo monouso. **MIC Test Strip** è solo per uso diagnostico *in vitro*, è destinato ad un ambito professionale e deve essere usato in laboratorio da operatori adeguatamente addestrati, con metodi approvati di asepsi e di sicurezza nei confronti degli agenti patogeni.

CONSERVAZIONE

La confezione integra di **MIC Test Strip** deve essere conservata a -20°C fino alla data di scadenza indicata sulla confezione.

Se le strisce estratte dai comparti sigillati non vengono immediatamente utilizzate, devono essere conservate a $2-8^{\circ}\text{C}$ nella provetta a chiusura ermetica, contenente essiccante, fornita nella confezione, per non più di 7 giorni.

Non utilizzare oltre la data di scadenza.

Eliminare se vi sono segni di deterioramento.

ELIMINAZIONE DEL MATERIALE USATO

Dopo l'utilizzazione **MIC Test Strip** ed il materiale venuto a contatto con il campione devono essere decontaminati e smaltiti in accordo con le tecniche in uso in laboratorio per la decontaminazione e lo smaltimento di materiale potenzialmente infetto.

DESCRIPTION

MIC Test Strip is a quantitative assay for determining the Minimum Inhibitory Concentration (MIC) of antimicrobial agents against microorganisms and for detecting the resistance mechanisms.

MIC Test Strip are paper strips with special features* that are impregnated with a predefined concentration gradient of antibiotic, across 15 two-fold dilutions of a conventional MIC method.

On one side of the strip is indicated a MIC scale in $\mu\text{g/mL}$ and a code that identify the antimicrobial agent.

For ESBL (Extended Spectrum Beta Lactamase) and MBL (Metallo Beta Lactamase) detection, the double-sided gradient carries the appropriate diagnostic reagents.

MIC Test Strip are available in a large variety of configurations. Each configuration is available in packages of 10, 30 and 100 tests.

CONTENTS OF THE PACKAGES

The 10-test box contains 10 strips individually packed in desiccant envelopes and an instruction sheet.

The 30-test box contains 30 strips individually packed in desiccant envelopes and an instruction sheet.

The 100-test box contains 10 desiccant envelopes, each containing 10 strips, and an instruction sheet. The 100-test pack also contains a storage tube.

METHOD PRINCIPLE

When the **MIC Test Strip** is applied onto an inoculated agar surface, the preformed exponential gradient of antimicrobial agent is immediately transferred to the agar matrix.

After 18 hours incubation or longer, a symmetrical inhibition ellipse centered along the strip is formed. The MIC is read directly from the scale in terms of $\mu\text{g/mL}$ at the point where the edge of the inhibition ellipse intersects the strip **MIC Test Strip**. Other growth/inhibition patterns may also be seen for resistance detection methods.

COMPOSITION

The strips are made of high-quality paper and each strip is impregnated with a predefined concentration gradient across 15 two-fold dilutions of antibiotic agent.

GATHERING AND KEEPING SAMPLES

The colonies that are to be subjected to the evaluation of Minimum Inhibition Concentration (MIC) are taken up by culture media that have been previously swabbed with the sample under examination. In the case of mixed colonies the bacterial strains must be purified before inoculation.

TEST PROCEDURE

1. Allow unopened envelop to come to room temperature before opening it, for minimising condensation on the strip.
2. Swab 4 to 5 well isolated and morphologically similar colonies with a culture medium and suspend them in 5 mL of a suitable suspension medium. Fastidious microorganisms should be suspended in broth and used within 15 minutes.
3. Compare the turbidity to the appropriate McFarland standard.
4. Dip a sterile swab in the broth culture or in a diluted form thereof and squeeze it on the wall of the test tube to eliminate excess liquid.
5. Drag it along the surface of the medium contained on the plate so as to produce even growth; allow excess moisture to be absorbed and ensure that the surface is completely dry before applying strips.
6. Apply the strip to the agar surface with the MIC scale facing upwards and code of the strip to the outside of the plate, pressing it with a sterile forceps on the surface of the agar and ensure that whole length of the antibiotic gradient is in complete contact with the agar surface. Once applied, do not move the strip.
7. Incubate plates in an inverted position under conditions appropriate for the microorganism.
8. Put the not used strips onto the tube contained in the package.

EVALUATING THE RESULTS

At the end of incubation read the MIC value where the edge of the inhibition ellipse intersects the strip (intersection between two scale segments should be round up to the higher value). MIC break points for defining susceptibility categories as provided by CLSI or EUCAST could be used for interpreting MIC values.

Always round up **MIC Test Strip** half dilution values to the next upper two-fold value before categorisation. An overview of CLSI and EUCAST interpretative criteria is provided in Table no.1.

CLINICAL INTERPRETATION

The test **MIC Test Strip** carried out *in vitro* cannot exactly reproduce *in vivo* conditions. Nevertheless, it shows the effect of the concentration of the antibiotic, which varies in the culture medium in relation to the growth of the microbial population. The final choice of antibiotic to administer to the patient is the responsibility of the clinician who possesses all the information on the patient.

QUALITY CONTROL

Each batch of **MIC Test Strip** is subjected to precise and thorough checks in compliance with CLSI standards using the bacterial strains indicated in the table no.1.

PRECAUTIONS

The **MIC Test Strip** cannot be classified as being hazardous according to current legislation but fall within the specific field of application where a safety data sheet must be supplied because they can cause phenomena of sensitisation in sensitive subjects if they come into contact with the skin.

MIC Test Strip are disposable products. **MIC Test Strip** are only for diagnostic *in vitro* use and are intended for professional use. They must be used in the laboratory by properly trained operators using approved aseptic and safety methods for pathogenic agents.

STORAGE

The unopened package of **MIC Test Strip** should be stored at -20°C until the given expiry date.

Leftover **MIC Test Strip** from an opened package must be stored at $2-8^{\circ}\text{C}$ in the airtight tube, containing desiccant, provided in the pack for no more than 7 days.

Do not store near sources of heat and do not expose to excessive temperature variations.

ELIMINATING USED MATERIAL

After use, **MIC Test Strip** and the material that comes into contact with the sample must be decontaminated and disposed of in accordance with current laboratory techniques for the decontamination and disposal of potentially infected material.

DESCRIPTION

Les bandelettes CMI permettent la détermination quantitative des concentrations inhibitrices minimales (CMI) des antibiotiques / antifongiques vis à vis des bactéries / champignons ainsi que la détection des mécanismes de résistance.

Les bandelettes CMI sont des bandes de papier spécifiques imprégnées* de gradients prédéfinis de concentration antibiotique couvrant 15 doubles dilutions comme pour les méthodes de CMI conventionnelles.

D'un côté de la bandelette sont indiqués une échelle de CMI en $\mu\text{g/ml}$ et le code d'identification de l'antibiotique / antifongique. Les bandelettes CMI sont disponibles dans une large gamme d'antibiotiques / antifongiques. Chaque référence est disponible en conditionnement de 30 et 100 tests.

COMPOSITION DES CONDITIONNEMENTS

La version de 10 tests contient 10 bandelettes emballées individuellement dans un emballage-coque avec siccatif et notice d'emploi.

La version de 30 tests contient 30 bandelettes emballées individuellement dans un emballage-coque avec siccatif et notice d'emploi.

La version de 100 tests contient 100 bandelettes dans un emballage-coque, en groupe de 10, avec siccatif et notice d'emploi. La version de 100 tests contient aussi un tube de rangement.

PRINCIPE DE LA MÉTHODE

Lorsque la bandelette est déposée à la surface de la gélose préalablement ensemencée, le gradient exponentiel prédéfini de la molécule (antibiotique / antifongique) diffuse dans la gélose. Après 18 heures d'incubation ou plus, se forme une zone symétrique et elliptique centrée sur la bandelette.

La valeur de la CMI est lue directement grâce à l'échelle en $\mu\text{g/ml}$. La mesure est lue au point d'intersection de l'ellipse d'inhibition et de la bandelette.

COMPOSITION

Les bandelettes sont faites avec du papier de haute qualité et chaque bandelette est imprégnée de gradients prédéfinis de concentrations en antibiotique/ antifongique couvrant 15 doubles dilutions de la molécule.

COLLECTE ET CONSERVATION DES ÉCHANTILLONS

Les colonies utilisées pour la détermination des CMI doivent être identifiées et bien isolées. La pureté de l'inoculum est indispensable pour la qualité du résultat. Dans le cas de prélèvements polymicrobiens, l'inoculum doit être purifié avant utilisation.

MODE OPÉRATOIRE – PRÉPARATION

1. Permettre la mise à température ambiante de l'enveloppe fermée avant son ouverture afin de minimiser la condensation sur la bande.
2. Prélever quelques colonies isolées de morphologie identique. Inoculer les bactéries dans de l'eau physiologique (4 ou 5 colonies pour 5ml) ou en bouillon nutritif pour les bactéries à croissances difficiles.
3. Ajuster l'inoculum selon le Mc farland souhaité.
4. Plonger un écouvillon stérile dans la suspension préalablement préparée, presser l'écouvillon contre la paroi du tube pour éliminer l'excédent de liquide.
5. Ecouvillonner la gélose de façon homogène selon les techniques microbiologiques.
6. Appliquer les bandelettes après ensemencement en s'assurant que la gélose ne présente pas d'excès de suspension bactérienne. Les bandelettes doivent être positionnées code de l'antibiotique et gradient de CMI visibles ; bien s'assurer que toute la bandelette est en contact avec la surface de la gélose.
7. Incuber les boîtes dans les conditions appropriées pour le micro-organisme considéré.
8. Remettre les bandelettes non utilisées dans le tube prévu à cet effet.

EVALUATION DES RÉSULTATS

Après incubation, lire la valeur de la CMI : cette valeur est égale à la position où l'ellipse jointe la bandelette (si la valeur se trouve entre deux points de la bandelette, prendre la valeur la plus élevée).

Déduire les catégories de sensibilité en comparant la valeur trouvée avec les seuils critiques préconisés par la norme utilisée (CLSI, Eucast, SFM...). Si la valeur de CMI mesurée se trouve entre deux valeurs de dilution, considérer qu'elle est égale à la dilution supérieure.

INTERPRÉTATION CLINIQUE

L'essai avec la bandelette réactive CMI effectué in vitro ne peut pas reproduire exactement les conditions in vivo. Toutefois, il montre l'effet de la concentration de l'antibiotique, laquelle varie dans le milieu de culture en relation à la croissance de la population microbienne.

Le choix final de l'antibiotique à administrer au patient est la responsabilité du clinicien ayant toute l'information au sujet du patient.

CONTRÔLE QUALITÉ

Chaque lot de bandelette est soumis à une validation approfondie et précise en conformité avec les normes CLSI (confer tableau n°1).

PRÉCAUTIONS

Les bandelettes CMI ne sont pas classées comme « dangereuses » selon la législation en vigueur, mais entrent dans le champs d'application dans lequel une fiche de sécurité doit être fournie. En effet les bandelettes peuvent provoquer des phénomènes de sensibilisation lors de contact avec la peau.

Les bandelettes sont à usage unique.

L'utilisation des bandelettes est destinée au diagnostic in vitro uniquement. La manipulation du produit doit se faire par un professionnel de laboratoire dans le respect des règles d'hygiène et de sécurité.

STOCKAGE

L'emballage non ouvert doit être conservé entre -20°C et ce jusqu'à la date de péremption.

Un fois ouvertes, les bandelettes doivent être conservées et stockées entre 2 et 8°C et ce, pour une durée maximale de 7 jours.

Ne pas stocker le produit à proximité d'une source de chaleur.

Ne pas faire subir des variations de température importantes aux bandelettes.

Ne pas utiliser après date de péremption.

Jeter les bandelettes dans le cas où celles-ci présentent un signe de détérioration.

ÉLIMINATION DU MATÉRIEL

Après utilisation, les bandelettes et matériel qui entrent en contact avec l'échantillon doivent être décontaminés et éliminés conformément aux techniques usuelles de laboratoire et selon la réglementation en vigueur sur la gestion des déchets contaminés.

BESCHREIBUNG

MIC Test Strip ist eine quantitative Methode zur Bestimmung der minimalen Hemm-konzentration (MHK) von antimikrobiellen Substanzen gegen Mikroorganismen und für die Bestimmung von Resistenz Mechanismen.

MIC Test Strip sind spezielle Papier Streifen*, imprägniert mit einem definierten Konzentrationsgradienten eines Antibiotikums über 15 zweifach Verdünnungsstufen einer konventionellen MHK Methode.

Auf der Rückseite des Streifens ist eine entsprechende MHK Skala in $\mu\text{g/mL}$ und ein Kode für die jeweilige antimikrobielle Substanz. Für den Nachweis von ESBL (Extended Spektrum Beta-Laktamase) oder MBL (Metallo Beta-Laktamase) sind auf jedem Streifen zwei Gradienten mit den geeigneten Reagenzien aufgebracht.

MIC Test Strip gibt es in unterschiedlichen Konfigurationen und jede Konfiguration ist verfügbar in Packungen zu je 10, 30 oder 100 Tests.

INHALT DER PACKUNGEN

Die 10-Test Box enthält 10 einzeln verpackte Streifen in beschichteten Folienbeuteln und eine Gebrauchsanleitung.

Die 30-Test Box enthält 30 einzeln verpackte Streifen in beschichteten Folienbeuteln und eine Gebrauchsanleitung.

Die 100-Test Box enthält 10 beschichtete Folienbeutel mit je 10 Streifen und eine Gebrauchsanleitung. Die 100-Test Box enthält zusätzlich ein Aufbewahrungsröhrchen.

TESTPRINZIP

Legt man den **MIC Test Strip** auf eine inokulierte Agaroberfläche, wird der vorgeformte exponentielle Gradient der antimikrobiellen Substanz sofort auf die Agarmatrix übertragen. Nach 18 stündiger Inkubation oder länger, wird entlang des Streifens eine symmetrische Hemmellipse gebildet. Die MHK wird direkt von der Skala in $\mu\text{g/mL}$ an dem Punkt abgelesen, wo die Hemmellipse den **MIC Test Strip** schneidet. Es können aber auch andere Wachstums- oder Hemmmuster auftreten bei den verschiedenen Resistenzbestimmungsmethoden.

ZUSAMMENSETZUNG

Die Streifen sind aus Hochqualitätspapier gefertigt, und jeder Streifen ist imprägniert mit einem vorgeformten Konzentrationsgradienten über 15 zweifach Verdünnungsstufen der antimikrobiellen Substanz.

PROBEN

Die auf die minimale Hemmkonzentration (MHK) zu überprüfenden Kolonien werden von einem vorher mit der zu prüfenden Probe inokulierten Medium abgenommen. Bei Mischkulturen müssen vorher Reinkulturen hergestellt werden.

TESTDURCHFÜHRUNG

1. Die ungeöffnete Hülle vor dem Öffnen auf Raumtemperatur bringen, um eine Kondensation auf den Streifen zu minimieren.
2. 4 bis 5 isolierte und morphologisch ähnliche Kolonien mit einer Öse abnehmen und in 5 ml eines geeigneten Mediums suspendieren. Anspruchsvolle Mikroorganismen sollten in Flüssigmedium suspendiert und innerhalb von 15 Minuten verwendet werden.
3. Die Trübung mit dem geeigneten McFarland Standard vergleichen und die Suspension entsprechend einstellen.
4. Einen sterilen Tupfer in die Suspension tauchen, und den Tupfer gegen die Röhrchenwand drücken um überschüssige Flüssigkeit zu entfernen.
5. Mit dem Tupfer die Agarplatte so ausstreichen, dass ein gleichmäßiges Wachstum erfolgt. Die Plattenoberfläche trocknen lassen und sicherstellen, dass die Oberfläche der Platten vor dem Auflegen der Streifen trocken ist.
6. Den Streifen auf die Agaroberfläche auflegen mit der Skala nach oben und dem Kode für die Substanz nach aussen. Den Streifen mit der Pinzette andrücken und darauf achten, dass er auf der ganzen Länge aufliegt. Den Streifen nach Kontakt mit dem Agar nicht mehr verschieben.

7. Platten umgedreht unter geeigneten Bedingungen für die jeweiligen Keime inkubieren.

8. Die nicht verwendeten Streifen im mitgelieferten Röhrchen lagern.

ABLESEN DER ERGEBNISSE

Am Ende der Inkubationszeit die MHK da ablesen, wo der Rand der Hemmellipse den Streifen schneidet.

MHK Grenzkonzentrationen (Breakpoints) zur Definition der Empfindlichkeitskategorien wie die von CLSI oder EUCAST können zur Interpretation der MHK Werte verwendet werden. Der Streifen zeigt auch Zwischenwerte der Verdünnungsstufen. Bei der Kategorisierung (in S, I oder R) bei Zwischenwerten immer auf den nächsten vollen Verdünnungsschritt aufrunden. Eine Übersicht von CLSI und EUCAST Werten ist in Tabelle 1 dargestellt.

KLINISCHE INTERPRETATION

MIC Test Strip ist ein *in vitro* Test und er kann nicht *in vivo* Bedingungen exakt darstellen. Dennoch zeigt er den konzentrationsabhängigen Effekt des Antibiotikums. Dieser variiert im Kulturmedium in Abhängigkeit zum Wachstum der mikrobiellen Population.

Die endgültige Entscheidung, welches Antibiotikum der Patient bekommt, liegt in der Verantwortlichkeit des Klinikers, der alle Informationen über den Patienten besitzt.

QUALITÄTSKONTROLLE

Mit jeder Charge des **MIC Test Strip** werden präzise und sorgfältige Kontrollen gemäß der CLSI Standards mit den Stämmen durchgeführt, die in Tabelle 1 aufgeführt sind.

VORSICHTSMASSNAHMEN

Nach gegenwärtiger Gesetzgebung kann **MIC Test Strip** nicht als gefährlich eingestuft werden, er fällt aber in einen Anwendungsbereich, wo ein Sicherheitsdatenblatt zur Verfügung gestellt werden muss, da der Test eine Sensibilisierung bei empfindlichen Personen verursachen kann, wenn sie mit der Haut in Kontakt kommen.

MIC Test Strip ist zum einmaligen Gebrauch bestimmt. **MIC Test Strip** ist nur für die diagnostische *in vitro* Testung und professionellen Einsatz. Er muss im Labor von gut geschultem Personal unter Berücksichtigung der Regeln für das Arbeiten mit pathogenen Keimen angewendet werden.

LAGERUNG

Die ungeöffnete MIC Test Strip Packung sollte bei -20°C bis zum angegebenen Verfallsdatum gelagert werden.

Restliche MIC Test Strips einer geöffneten Packung müssen bei $2-8^{\circ}\text{C}$ maximal 7 Tage in dem luftdicht verschlossenen Röhrchen mit Trockenmittel, das in der Packung mitgeliefert wird.

Nicht in der Nähe von Hitzequellen lagern oder hohen Temperaturschwankungen aussetzen.

Nicht nach dem Verfallsdatum verwenden.

Bei Anzeichen einer Schädigung der Streifen den Test nicht mehr verwenden.

ENTSORGUNG VON GEBRAUCHTEM MATERIAL

Nach Gebrauch wird **MIC Test Strip** und alle Materialien, die mit den Proben in Kontakt gekommen sind, dekontaminiert und entsprechend den Laborrichtlinien für infektiöses Material entsorgt.

DESCRIPCION

MIC Test Strip es un método cuantitativo para la determinación de la Concentración Mínima Inhibitoria (CMI) de un simple agente antimicrobiano frente a un microorganismo y la detección de la presencia de mecanismos de resistencia.

MIC Test Strip son tiras de papel de característica especial*, impregnadas con un gradiente de concentración predefinida del agente antimicrobiano, constituidas de 15 diluciones, comprendidas en el intervalo de la dilución usada en el método convencional para la determinación de la CMI.

En una cara de la tira lleva impresa una escala graduada para la lectura, indicada en $\mu\text{g/mL}$ y un código que especifica el tipo de antimicrobiano.

MIC Test Strip están disponibles para una gran variedad de antimicrobianos. Cada antimicrobiano está disponible en presentación de 10, 30 ó 100 test.

CONTENIDO DEL KIT

La caja de 10 tests contiene 10 tiras, envasadas individualmente en sobres desecantes, y un manual de instrucciones.

La caja de 30 tests contiene 10 tiras, envasadas individualmente en sobres desecantes, y un manual de instrucciones.

La caja de 100 tests contiene 10 sobres desecantes conteniendo 10 tiras cada uno, un manual de instrucciones, y un tubo de almacenamiento.

PRINCIPIO DEL METODO

Cuando la tira **MIC Test Strip** se aplica sobre la superficie del agar inoculado, el gradiente exponencial predefinido es transferido al agar.

Después de la incubación de 18 horas o más, se puede observar una zona de inhibición elíptica, simétrica y centrada con la tira.

El valor de CMI, expresada en $\mu\text{g/mL}$, se lee en el punto de intersección del borde de la elipse de inhibición con la tira **MIC Test Strip**.

COMPOSICION

Las tiras son de un papel especial de alta calidad, y cada una está impregnada con un gradiente de concentración predefinido de 15 diluciones del antimicrobiano.

PREPARACION DE LAS MUESTRAS

Las colonias de la cepa a testar para la Concentración Mínima Inhibitoria (CMI) se toman a partir del medio de cultivo previamente inoculado con la muestra.

En caso de que se observen colonias mixtas, es necesario obtener un cultivo puro.

PROCEDIMIENTO DEL TEST

1. Dejar atemperar el envoltorio antes de abrirlo para minimizar la posible condensación en la tira.

2. Tocar 4-5 colonias bien aisladas y morfológicamente similares, a partir de una placa y hacer una suspensión en 5 mL de un caldo de cultivo adecuado. Para microorganismos exigentes se recomienda suspender las colonias en el caldo de estandarización y utilizar la suspensión para inocular la placa antes de 15 minutos.

3. Confrontar la turbidez de la suspensión con el estándar McFarland apropiado.

4. Insertar un escobillón estéril en el tubo con la suspensión estandarizada, exprimirlo contra la pared del tubo para eliminar el exceso de líquido.

5. Extender con el escobillón impregnado con el inóculo toda la superficie de la placa con el medio apropiado para la CMI de esa cepa, sembrando en tres direcciones de forma que quede un inóculo homogéneo. Permitir que se absorba el exceso de humedad de la superficie de la placa antes de aplicar las tiras.

6. Aplicar las tiras sobre la superficie del agar, con unas pinzas o un alfiler estériles, asegurándose que una vez colocada la tira quede totalmente en contacto con la superficie del agar y con la escala graduada hacia nosotros de forma que se pueda leer. Una vez colocada la tira, no se puede desplazar ni levantar del agar.

7. Incubar la placa en posición invertida (lado del agar hacia arriba) durante el tiempo y atmósfera de incubación apropiados para el microorganismo inoculado.

8. Colocar las tiras no utilizadas en el tubo con desecante incluido en el kit y dejarlas en frigorífico (si se van a usar antes de 1 mes) o en congelador (para un período superior). Evitar que las tiras queden expuestas al aire y a la humedad.

INTERPRETACION DE LOS RESULTADOS

Al terminar la incubación, leer el valor de CMI en el punto en el que la elipse intercepta con la tira.

Para la interpretación de la categoría de sensibilidad de la CMI obtenida con **MIC Test Strip**, se ha de utilizar las tablas del último documento aprobado por EUCAST ó CLSI, según el estándar más adecuado a su laboratorio.

Los valores de CMI que obtengamos en medio de dos diluciones seriadas, se han de redondear al alza y dar como CMI el valor inmediato superior. En la tabla nº1 se adjunta un resumen de los valores interpretativos de CLSI y EUCAST.

INTERPRETACION CLINICA

El test **MIC Test Strip** efectuado in vitro no es una reproducción exacta de las condiciones que se producen in vivo, pero puede ser una indicación del potencial de sensibilidad in vivo del microorganismo. La responsabilidad final de la terapia a suministrar al paciente corresponde al clínico que es el que posee toda la información y datos correspondientes al paciente.

CONTROL DE CALIDAD

Cada lote de **MIC Test Strip** se somete a un control de calidad, de acuerdo a las normas CLSI, utilizando las cepas de control indicadas en la tabla nº1.

PRECAUCIONES

El producto **MIC Test Strip** no está clasificado como peligroso de acuerdo a la legislación vigente, pero cae dentro de la aplicación de una hoja de seguridad ya que puede producir fenómenos de sensibilidad si entran en contacto con la piel de individuos sensibles.

MIC Test Strip es un producto desechable y de un solo uso. **MIC Test Strip** es para uso sólo de diagnóstico in vitro, y destinado a ser utilizado en un ámbito profesional, dentro de un laboratorio adecuado y por personal adiestrado a trabajar de forma aséptica y segura con métodos para testar agentes patógenos.

CONSERVACION

El envase intacto de **MIC Test Strip** debe ser almacenado a -20°C hasta su fecha de caducidad. Las tiras sobrantes de un envase abierto, pueden conservarse refrigeradas ($2-8^{\circ}\text{C}$), en el interior del tubo estanco con desecante proporcionado, durante no más de 7 días. No almacenar cerca de fuentes de calor y no exponer a variaciones extremas de temperatura. No utilizar después de esta fecha. Desechar si se aprecian signos de deterioro.

ELIMINACION DEL MATERIAL UTILIZADO

Después del uso, las **MIC Test Strip** y el material que ha estado en contacto con la muestra, deben ser eliminados y descontaminados de acuerdo a las técnicas utilizadas en el laboratorio para la decontaminación y eliminación de material potencialmente infectado.

DESCRIÇÃO

MIC Test Strip é um método quantitativo para a determinação da Concentração Mínima Inibitória (CMI) de um agente antimicrobiano simples frente a um microorganismo e a detecção da presença de mecanismos de resistência.

MIC Test Strip são tiras de papel de característica especial, impregnadas com um gradiente de concentração pré-definida do agente antimicrobiano, constituídas por 15 diluições, compreendidas no intervalo da diluição utilizada no método convencional para a determinação da CMI.

Numa das faces da tira está impressa uma escala graduada para a leitura, indicada em $\mu\text{g/mL}$ e um código que especifica o tipo de antimicrobiano.

MIC Test Strip estão disponíveis para uma grande variedade de antimicrobianos. Cada antimicrobiano está disponível na apresentação de 30 ou 100 testes.

CONTEÚDO DO KIT

A embalagem de 10 testes contém 10 tiras individualmente embaladas em envelopes dessecantes e a folha de instruções. A embalagem de 30 testes contém 30 tiras individualmente embaladas em envelopes dessecantes e a folha de instruções. A embalagem de 100 testes contém 10 envelopes dessecantes, cada um contendo 10 tiras, e a folha de instruções. A embalagem de 100 testes contém também um tubo para armazenamento.

PRINCÍPIO DO MÉTODO

Quando a tira **MIC Test Strip** se aplica sobre a superfície do agar inoculado, o gradiente exponencial pré-definido é transferido para o agar.

Após a incubação de 18 horas ou período superior, pode-se observar uma zona de inibição elíptica, simétrica e centrada com a tira.

O valor de CMI, expressa em $\mu\text{g/mL}$, lê-se no ponto de intersecção do bordo da elipse de inibição com a tira **MIC Test Strip**.

COMPOSIÇÃO

As tiras são de um papel especial de qualidade elevada, e cada uma está impregnada com um gradiente de concentração pré-definido de 15 diluições do antimicrobiano.

PREPARAÇÃO DAS AMOSTRAS

As colónias da estirpe a testar para a Concentração Mínima Inibitória (CMI) são retiradas do meio de cultura previamente inoculado com a amostra. No caso de se observarem colónias mistas, é necessário obter uma cultura pura.

PROCEDIMENTO DO TESTE

1. Os discos não utilizados, do cartucho anteriormente aberto, deverão estabilizar a temperatura ambiente (antes de qualquer utilização) conforme descrito anteriormente.
2. Tocar 4-5 colónias bem isoladas e morfológicamente similares, a partir de uma placa e fazer uma suspensão em 5 mL de um caldo de cultura adequado. Para microorganismos exigentes recomenda-se suspender as colónias no caldo de padronização e utilizar a suspensão para inocular a placa antes de 15 minutos.
3. Confrontar a turvação de uma suspensão com o padrão McFarland apropriado.
4. Inserir um escovilhão estéril no tubo com a suspensão padronizada, espremê-lo contra a parede do tubo para eliminar o excesso de líquido.
5. Com o escovilhão impregnado com o inóculo aplicar em toda a superfície da placa com o meio apropriado para a CMI dessa estirpe, semeando em três direcções de forma a ficar um inóculo homogéneo. Permitir que se absorva o excesso de humidade da superfície da placa antes de aplicar as tiras.

6. Aplicar as tiras sobre a superfície do agar, com pinças ou um alfinete estéril, assegurando que depois de colocada, a tira fica totalmente em contacto com a superfície do agar e com a escala graduada virada para nós, de forma que se possa ler. Uma vez colocada a tira, não se pode deslocar nem levantar do agar.

7. Incubar a placa em posição invertida (lado do agar para cima) durante o tempo e atmosfera de incubação apropriados para o microorganismo inoculado.

8. Colocar as tiras não utilizadas no tubo com dessecante incluído no kit e deixá-las no frigorífico (se forem utilizadas antes de 1 mês) ou no congelador (para um período superior). Evitar que as tiras fiquem expostas ao ar e à humidade.

INTERPRETAÇÃO DOS RESULTADOS

Ao terminar a incubação, ler o valor de CMI no ponto em que a elipse intercepta com a tira. Para a interpretação da categoria de sensibilidade da CMI obtida com o **MIC Test Strip**, devem utilizar-se as tabelas do último documento aprovado pelo EUCAST ou CLSI, segundo o padrão mais adequado ao seu laboratório.

Os valores de CMI que obtemos no meio de duas diluições seriadas, devem ser arredondados e dar como CMI o valor imediato superior. Na tabela nº1 anexa-se um resumo dos valores interpretativos de CLSI e EUCAST.

INTERPRETAÇÃO CLÍNICA

O teste **MIC Test Strip** efectuado in vitro não é uma reprodução exacta das condições que ocorrem in vivo, mas pode ser uma indicação do potencial de sensibilidade in vivo do microorganismo. A responsabilidade final da terapêutica a administrar ao doente é do seu médico que possui toda a informação e dados correspondentes ao doente.

CONTROLO DE QUALIDADE

Cada lote de **MIC Test Strip** é submetido a um controlo de qualidade, de acordo com as normas CLSI, utilizando as estirpes de controlo indicadas na tabela nº1.

PRECAUÇÕES

O produto **MIC Test Strip** não está classificado como perigoso de acordo com a legislação vigente, mas aplica-se-lhe a obrigação legal de ter uma ficha de segurança, pois pode causar fenómenos de sensibilidade, caso contacte com a pele de indivíduos sensíveis.

MIC Test Strip é um produto descartável e de utilização única.

MIC Test Strip destina-se a uso em diagnóstico in vitro, em âmbito profissional, num laboratório adequado e por pessoal treinado para trabalhar de forma asséptica e segura com métodos para testar agentes patogénicos.

CONSERVAÇÃO

A embalagem fechada de **MIC Test Strip** deve ser conservada a -20°C até ao fim do prazo de validade. O restante de uma embalagem aberta de **MIC Test Strip** tem de ser conservado a $2-8^{\circ}\text{C}$ no tubo, com dessecante, fornecido com a embalagem, num período máximo de 7 dias. Não conserve perto de fontes de calor e não exponha a variações excessivas de temperatura. Não utilize após expirar o prazo de validade. Elimine caso apresentem sinais de degradação.

ELIMINAÇÃO DO MATERIAL UTILIZADO

Após utilização, as **MIC Test Strip** e o material que esteve em contacto com a amostra, devem ser eliminados e descontaminados de acordo com as técnicas utilizadas no laboratório para a descontaminação e eliminação de material potencialmente infectado.

BESKRIVELSE

MIC Test Strip er en kvantitativ metode for bestemmelse av den minste hemmende konsentrasjon (MIC) av et antimikrobielt middel overfor en mikroorganisme, og for påvisning av resistensmekanismer.

MIC Test Strip er papirstrimler/strips med spesielle egenskaper som er impregnert med en predefinert gradient av antibiotika over 15 to-foldsfortynningstrinn tilsvarende en konventionell MIC metode.

Oversiden av strimmelen er merket med MIC-skalaen i $\mu\text{g/mL}$ og en kode som identifiserer det antibiokrobielle midlet.

Til påvisning av ESBL (Extended Spectrum Beta Lactamase) og MBL (Metallo Beta Lactamase) har strimmelen dobbeltsidige gradienter med egnede diagnostiske reagenser. Flere typer **MIC Test Strip** er tilgjengelige, og de kommer i forpakningsstørrelser på 10, 30 og 100 tester.

BESTANDDELER

10-testforpakningen inneholder 10 strips som er pakket enkeltvis i en pose med tørkemiddel, samt pakningsvedlegg
30-testforpakningen inneholder 30 strips som er pakket enkeltvis i en pose med tørkemiddel, samt pakningsvedlegg
100-testforpakningen inneholder 10 poser med tørkemiddel som hver inneholder 10 strips, samt pakningsvedlegg. 100-testforpakningen inneholder også et lagringsrør.

METODENS PRINSIPP

Når **MIC Test Strip** appliseres på en inokulert agaroverflate vil den predefinerte ekponensielle antibiotikagradienten umiddelbart overføres til agaren.

Etter minst 18 timers inkubering vil en symmetrisk hemningselipse bli dannet sentrert langs strimmelen.

MIC-verdien, uttrykt i $\mu\text{g/mL}$, leses direkte ved skjæringspunktet mellom hemningselipsen og strimmelen **MIC Test Strip**. Andre vekst/hemningsmønstre sees som resistenspåvisningsmetoder.

INNHold/KOMPOSISJON

Strimmelen er laget av høykvalitetspapir og hver strimmel er impregnert med en predefinert konsentrasjonsgradient av et antibiotisk middel over 15 to-foldsfortynningstrinn.

PRØVEBEHANDLING

Kolonier som skal undersøkes med henblikk på minste hemmende konsentrasjon (MIC), tas fra dyrkningsmedier hvor man tidligere har sådd ut aktuell prøve. I tilfeller med oppvekst av flere mikrober, må akutell mikrobe rendyrkes før undersøkelse

TESTPROSEDYRE

1. La den uåpnede aluminiumsposen få romtemperatur før den åpnes, for å hindre kondensasjon av stripsen.
2. Berør 4-5 isolertekolonier med liknende morfologi fra et dyrkningsmedium og suspender dem i 5 mL egnet suspenderingsmedium. Fastidøse mikroorganismer bør suspenderes i bujong og viderebehandles innen 15 minutter.
3. Sammenlikn turbiditeten mot en tilsvarende McFarland standard.
4. Dypp en steril swab i buljongmediet eller annen fortyning og press den mot glassveggen for å fjerne overskuddsvæske.
5. Stryk swaben/penselen over skålens agaroverflate slik at man får en jevn oppvekst. La overskuddsfuktighet bli absorbert og se til at overflaten er helt tørr før applisering av **MIC Test Strip**.
6. Legg strimmelen på agaroverflaten med MIC skalaen opp, og med strimmelens kode mot skålens ytterrand. Legg den på ved hjelp av et sterilt pinsett, og trykk den mot agaroverflaten slik at hele gradientens lengde er fullstendig i kontakt med agaroverflaten. **MIC Test Strip** må ikke flyttes etter at den først er lagt ned.
7. Inkuber skålene opp-ned under rette forhold for den aktuelle mikroorganisme.
8. Legg ubrukte strips i det medfølgende lagringsrøret.

TOLKNING AV RESULTATER

Etter endt inkubering leses MIC-verdien der inkuberingseilipsens kant skjærer strimmelen. (Benytt den høyeste verdien når skjæringspunktet treffer mellom to skalamerker).

MIC brytningspunkter for klassifisering av følsomhets kategorier angitt av CLSI eller EUCAST kan benyttes for tolkning av MIC-verdier.

Forhøy alltid halve **MIC Test Strip** fortynningsverdier til nærmeste tofoldsfortynningstrinn før tolkning av resistenskategori. En oversikt over CLSI og EUCASTs tolkningsgrunnlag finnes i Tabell no.1.

KLINISK TOLKNING

Undersøkelse med **MIC Test Strip** utføres in vitro og kan ikke nøyaktig reprodusere de forhold man finner in vivo. Alikevel vises antibiotikakonsentrasjonens effekt ved at mikrobiologisk vekst varierer i samsvar med varierende konsentrasjon i dyrkningsmediet.

Ansvar for avgjørelsen om hvilket middel som skal administreres til pasienten tilhører klinikerens som innehar all pasientinformasjon.

KVALITETSKONTROLL

Hver batch **MIC Test Strip** gjennomgår presise og nøyaktige kontroller i henhold til CLSI standarder ved å benytte bakteriestammer som oppgitt i tabell 1.

FORHOLDSREGLER

MIC Test Strip klassifiseres ikke som farlig stoff i henhold til gjeldende forskrifter, men faller inn under spesielle applikasjonsområder hvor sikkerhetsdatablad er påkrevet fordi strimlene kan forårsake sensitivitet hos sensitive personer ved hudkontakt.

MIC Test Strip er engangsprodukter. **MIC Test Strip** er utelukkende beregnet til in vitro diagnostisk bruk og er beregnet for profesjonelt bruk. De må håndteres i laboratorier med trent personale, og med godkjente aseptiske-, og sikkerhetsmetoder for patogene agens.

OPPBEVARING

Uåpnede pakker med **MIC Test Strip** må lagres ved -20°C inntil den oppgitte holdbarhetsdatoen.

Ikke benyttede **MIC Test Strips** fra en åpen forpakning må lagres ved $2-8^{\circ}\text{C}$ i det medfølgende lufttette røret, som inneholder tørrstoff, mer enn 7 døgn i kjøleskap.

Oppbevar dem ikke i nærheten av varme, og eksponer dem ikke for uvanlige temperaturvariasjoner. Må ikke benyttes etter utgangsdatoen.

Benytt ikke strimler som viser tegn til å være ødelagte.

AVHENDING

Etter bruk må **MIC Test Strip**, og annet utstyr som har vært i kontakt med prøvemateriale, dekontamineres og kastes i henhold til gjeldende laboratoriepraksis for dekontaminering og avhending av potensielt infeksjøs materiale.

POPIS

MIC Test Strip je test na kvantitatívne stanovenie minimálnej inhibičnej koncentrácie (MIC) antimikrobiálnych látok a na stanovenie mechanizmov rezistencie mikroorganizmov.

MIC Test Strip je papierový prúžok špeciálnych vlastností*, ktorý je impregnovaný preddefinovaným koncentračným gradientom antibiotika – 15 dvojnásobných riedení konvenčnej MIC metódy. Na líčnej strane je škála koncentrácie MIC v $\mu\text{g/ml}$ a kódové označenie antimikrobiálnej látky. Prúžky na detekciu ESBL (betaaktamázy s rozšíreným spektrom) a MBL (metalo beta laktamázy), obsahujú po dva gradienty príslušných reagensí, ktoré sú umiestnené na opačných koncoch prúžku.

MIC Test Strip je dostupný v širokej ponuke antimikrobiálnych látok v baleniach po 10, 30 a 100 prúžkov.

OBSAH BALENIA

10 testové balenie obsahuje 10 individuálne balených prúžkov s pohlcovačmi vlhkosti a príbalový leták.

30 testové balenie obsahuje 30 individuálne balených prúžkov s pohlcovačmi vlhkosti a príbalovým letákom.

100 testové balenie obsahuje 10 balení po 10 prúžkov s pohlcovačmi vlhkosti. Balenie obsahuje aj skúmavku určenú na skladovanie prúžkov po otvorení menšieho balenia a príbalový leták.

PRINCÍP

Po položení **MIC Test Strip** prúžku na inokulovaný povrch platne je do pôdy ihneď uvoľnený preddefinovaný exponenciálny gradient antimikrobiálnej látky.

Po 18 hodinách inkubácie vznikne symetrická eliptická zóna inhibície v centre s prúžkom. Hodnotu MIC je možné odčítať priamo v jednotkách $\mu\text{g/ml}$ z prúžku v mieste, kde inhibičná elipsa pretína **MIC Test Strip** prúžok. Pri detekcii mechanizmov rezistencie je možné zachytiť aj iné formy inhibičných zón.

ZLOŽENIE

Prúžok je vyrobený zo špeciálneho papiera a je impregnovaný preddefinovaným koncentračným gradientom antibiotika – 15 dvojnásobných riedení.

OBER A SKLADOVANIE VZORIEK

Kolonie baktérií, ktoré majú byť testované na stanovenie MIC majú byť odobraté z kultivačného média, na ktorom prebiehalo vyšetrenie vzorky. V prípade zmiešanej kultúry je potrebné pred testovaním MIC najskôr vzorky "vyčistiť"

POSTUP PRÁCE

1. Balenie prúžkov pred otvorením vždy najskôr vytemperujte. Minimalizujete tak možnú kondenzáciu vzdušnej vlhkosti na prúžkoch.
2. Odoberte 4-5 dobre izolovaných kolónií podobnej morfológie a rozriedte ich v 5 ml riediacom médiu. Rastovo náročné baktérie musia byť rozriedené kultivačným bujónom a ponechané v ňom po dobu 15 minút.
3. Presvedčte sa, že ste získali správnu hodnotu turbidity.
4. Ponorte sterilný tampón do skúmavky so vzorkou a o steny skúmavky vytlačte nadbytočnú tekutinu z tampóna.
5. Dôkladne natrite povrch kultivačného média, tak aby ste dosiahli rovnomerný rast. Pred položením prúžka musí byť povrch platne úplne suchý!
6. Položte prúžok na platňu MIC škálou nahor a jemne prúžok pritlačte, tak aby sa celý povrch prúžka dotýkal povrchu platne. S položeným prúžkom na platni viac nepohybujte!
7. Inkubujte platne v prevrátenej pozícii za podmienok vhodných pre konkrétne testované mikroorganizmy.
8. Nepoužitý prúžok odložte do chladničky v priloženej skúmavke s desikátorom.

VYHODNOTENIE VÝSLEDKOV

Po ukončení inkubácie odčítajte hodnotu MIC v mieste, kde sa inhibičná elipsa dotýka prúžku. V prípade nerovnakých výsledkov oboch častí inhibičnej elipsy, použite vyššiu získanú hodnotu MIC.

Na interpretovanie získaných MIC hodnôt môžu byť použité hodnoty break pointov, ktoré sú poskytované CLSI alebo EUCAST.

Výsledky, ktoré sa nachádzajú medzi dvoma hodnotami dvojnásobných riedení, zaokrúhlite pred interpretáciou nahor. Prehľad CLSI a EUCAST interpretačných kritérií je v tabuľke č. 1.

KLINICKÁ INTERPRETÁCIA

MIC Test Strip test vykonaný *in vitro* nemôže vždy presne zodpovedať *in vivo* podmienkam. Napriek tomu ukazuje efekt rôznej koncentrácie antibiotika v kultivačnom médiu na rast mikroorganizmov.

Konečné rozhodnutie pri výbere antibiotika je v zodpovednosti ošetrojúceho lekára, po zhodnotení všetkých informácií o pacientovi.

KONTROLA KVALITY

Každá šarža **MIC Test Strip** je dôkladne a starostlivo testovaná, či vyhovuje CLSI štandardom. Na kontrolu sú použité bakteriálne kmene uvedené v tabuľke č. 1.

BEZPEČNOSTNÉ OPATRENIA

MIC Test Strip v zmysle súčasnej legislatívy nie sú klasifikované ako nebezpečné,

ale v prípade niektorých aplikácií môžu senzibilizovať citlivé osoby ak test príde do kontaktu s pokožkou.

MIC Test Strip sú jednorázové testy. **MIC Test Strip** sú určené len na diagnostiku *in vitro* a na profesionálne použitie. Testy môžu byť použité iba v laboratóriu zaškoleným personálom za použitia aseptických a bezpečných postupov pri práci s patogénnymi mikroorganizmami.

SKLADOVANIE

MIC Test Strip neotvorené balenie môže byť skladované pri teplote -20°C . Po otvorení originálneho balenia, prúžky, ktoré zostali musia byť skladované v dodávanej vzduchotesnej skúmavke s desikátorom pri teplote $2-8^{\circ}\text{C}$ nie dlhšie ako 7 dní. Neskladujte ich pri zdroji tepla a nevystavujte ich kolísavým zmenám teploty.

Nepoužívajte ich po uplynutí expiračnej doby. Testy zlikvidujte ak majú známky poškodenia.

LIKVIDÁCIA ODPADU

MIC Test Strip prúžky a všetok materiál, ktorý prišiel do styku so vzorkou zlikvidujte ako potenciálne infekčný materiál.

POPIS

MIC Test Strip je určen pro kvantitativní stanovení minimální inhibiční koncentrace (MIC) antimikrobiálních látek proti mikroorganismům a pro detekci mechanismů rezistence.

MIC Test Strip jsou papírové proužky o speciálních vlastnostech*, které jsou napuštěné předdefinovaným koncentračním gradientem antibiotika, pokrývající 15 ředění dvojkové řady užívané u konvenčních MIC metod.

Na jedné straně proužku je zobrazena stupnice MIC v $\mu\text{g/ml}$ a kód identifikující antimikrobiální látku.

MIC Test Strip je dostupný ve velké škále různých variant. Každá varianta je dodávána v balení po 10, 30 nebo 100 proužcích.

OBSAH BALENÍ

Balení s 10 testy obsahuje 10 stripů individuálně balených v obalu s desikantem a návodem k použití.

Balení s 30 testy obsahuje 30 stripů individuálně balených v obalu s desikantem a návodem k použití.

Balení se 100 testy obsahuje 10 obálek s desikantem po 10 stripech a návod k použití. Součástí balení je také zkumavka k uchování stripů.

PRINCIP METODY

Když se **MIC Test Strip** položí na povrch agarů s inokulem, předem vytvořený gradient se okamžitě přenesou do agarové matrice.

Po 18 nebo více hodinách inkubace se vytvoří symetrická inhibiční elipsa mající střed kolem proužku. MIC se odečítá přímo ze stupnice v $\mu\text{g/ml}$ v bodě, kde elipsa protíná proužek **MIC Test Strip**.

SLOŽENÍ

Proužek je vyroben s vysoce kvalitního papíru a každý je napuštěn předdefinovaným koncentračním gradientem antibiotika pokrývajícím 15 ředění dvojkové řady.

SBĚR A UCHOVÁVÁNÍ VZORKŮ

Kolonie, jež jsou předmětem hodnocení minimální inhibiční koncentrace (MIC), se zachytí na kultivačním médiu, které bylo předtím naočkováno zkoumaným vzorkem. V případě, že se ve vzorku vyskytne směs kolonií, před inokulací je třeba jednotlivé kmeny bakterií purifikovat.

PRACOVNÍ POSTUP

Abyste minimalizovali kondenzaci vody na stripech, přizpůsobte nejprve stripy v uzavřené obálce pokojové teplotě.

2. Setřete 4 až 5 dobře izolovaných a morfoloogicky shodných kolonií z kultivačního média a suspendujte je v 5 ml vhodného roztoku. Náročné mikroorganismy je třeba suspendovat v bujónu a použít do 15 minut.

3. Srovnajte zákal vzhledem k příslušnému standardu McFarlanda.

4. Namočte sterilní tampon v bujónu s kulturou nebo v odtud naředěném roztoku a vymačkejte ho o stěnu testovací zkumavky kvůli odstranění přebytečné tekutiny.

5. Potřete celý povrch agarového média na misce tak, aby růst byl rovnoměrný; nechejte vsáknout přebytečnou vlhkost a ujistěte se, že před aplikací proužku je povrch dokonale suchý.

6. Položte proužek na povrch agarů MIC stupnicí otočenou nahoru a kódem proužku směrem ven z misky, přitlačte ho sterilní pinzetou a ujistěte se, že celá délka antibiotického gradientu se kompletně dotýká povrchu agarů. Jednou položený proužek už nepřemisťujte.

7. Inkubujte misky v obrácené poloze za podmínek vhodných pro daný mikroorganismus.

8. Vložte nepoužité proužky do zkumavky přiložené v balení.

HODNOCENÍ VÝSLEDKŮ

Na konci inkubace odečtěte hodnotu MIC v místě, kde okraj elipsy protíná proužek (průsečík mezi dvěma dílky stupnice je třeba zaokrouhlit na vyšší hodnotu).

Pro interpretaci MIC hodnot se užívají MIC breakpointy pro určení kategorie citlivosti dle CLSI nebo EUCAST.

Před kategorizací vždy zaokrouhlete mezihodnoty ředění na MIC proužku na další vyšší dvojkové ředění. Přehled CLSI a EUCAST interpretačních kritérií jsou v tabulce č. 1.

KLINICKÁ INTERPRETACE

MIC Test Strip test realizovaný in vitro nikdy nemůže přesně reprodukovat podmínky in vivo. Přesto však objasňuje účinek koncentrace antibiotika, která se mění v kultivačním médiu, ve vztahu k růstu mikrobiální populace.

Za konečný výběr antibiotika podávaného pacientovi zodpovídá klinický pracovník, který zná veškeré informace o pacientovi.

KONTROLA KVALITY

Každá šarže **MIC Test Strip** je podrobena přesné a důkladné kontrole v souladu s CLSI standardy s použitím bakteriálních kmenů vypsanych v tabulce č. 1.

OPATŘENÍ

MIC Test Strip nemůže být podle současné legislativy klasifikován jako nebezpečný, ale spadá do specifického pole aplikací, u kterých musí být dodán bezpečnostní list, protože může způsobit fenomén senzibilizace u citlivých osob, pokud u nich dojde ke kontaktu s kůží.

MIC Test Strip je produkt na jedno použití. **MIC Test Strip** je pouze pro in vitro použití a je určen pro odborníky. Musí se používat v laboratoři náležitě vyškoleným personálem s využitím schválených sterilních a bezpečných metod pro patogenní agens.

UCHOVÁVÁNÍ

Neotevřené balení **MIC Test Strip** by se mělo uchovávat při -20°C do data expirace.

Jednou otevřené balení **MIC Test Strip** je třeba uchovávat při $2-8^{\circ}\text{C}$ v těsně uzavřené zkumavce dodávané v balení, obsahující desikant, maximálně 7 dnů.

Neuchovávejte je blízko zdrojů tepla a nevystavujte je přílišnému střídání teplot.

Nepoužívejte po uplynutí data expirace.

Zničte je pokud vykazují známky poškození.

LIKVIDACE POUŽITÉHO MATERIÁLU

Po použití se musí **MIC Test Strip** a materiál, který přišel do kontaktu se vzorkem, dekontaminovat a likvidovat v souladu s běžnými laboratorními technikami pro dekontaminaci a likvidaci potenciálně infekčního materiálu.

BESKRIVELSE

MIC Test Strip er en kvantitativ analyse til bestemmelse af Minimum Inhibitorisk Koncentration (MIC) af anti-mikrobielle stoffer, som virker mod mikroorganismer og til undersøgelse af resistensmekanismer.

MIC Test Strip er specielle papirstrimler*, der er imprægneret med en prædefineret gradient af antimikrobielt stof over 15 fulde 2-folds fortyndingstrin.

På den ene side af strimlen er der påtrykt en MIC skala i $\mu\text{g/mL}$ samt en kode der angiver det antimikrobielle stof.

For specielle strimler til påvisning af ES β L (Extended Spektrum β -lactamase) og MBL (Metallo β -lactamase) indeholder den dobbelte gradient desuden en, for den specifikke strimmel, passende diagnostisk reagens.

MIC Test Strip er tilgængelig i en bred vifte af antibiotika og antimykotika, der alle fås i pakker med 10, 30 eller 100 styk.

INDHOLD

10 stk. pakningen indeholder 10 enkeltvis indpakkede strips i folieposer med tørremiddel samt produktvejledning.

30 stk. pakningen indeholder 30 enkeltvis indpakkede strips i folieposer med tørremiddel samt produktvejledning.

100 stk. pakningen indeholder 10 folieposer, hver med 10 strips, tørremiddel samt produktvejledning.

TESTPRINCIP

Efter at **MIC Test Strip** er lagt på den inokulerede og tørre agarplade overføres det anti-mikrobielle gradient direkte til agaren.

Efter mindst 18 timers inkubation fremkommer en symmetrisk inhibitionsellipse centreret omkring strimlen. MIC aflæses som $\mu\text{g/mL}$ hvor ellipsens kant rammer **MIC Test Strip**.

OPBYGNING

Strimpen er fremstillet af høj-kvalitetspapir og imprægneret med det anti-mikrobielle stof i en foruddefineret koncentrationsgradient over 15 2-folds fortyndingstrin.

PRØVEINDSAMLING OG PRØVEOPBEVARING

Kolonier der skal MIC bestemmes tages fra en plade hvorpå prøven tidligere er udsået. I tilfælde af forekomst af flere forskellige kolonier, skal bakteriestammerne først isoleres.

TESTPROCEDURE

1. Tillad uåbnet indhülle til at komme til stuetemperatur før du åbner den for at minimere kondensering på strimlen.
2. Tag 4-5 morfologiske identiske kolonier fra agarpladen, og suspender dem i 5 ml egnet suspensionsmedium så den ønskede McFarland opnås.
Kræsne organismer skal suspenderes i bouillon og anvendes inden for 15 minutter.
3. Dyp en steril swab i McFarland suspensionen og pres overskydende væske fra mod siden i glasset.
4. Inokuler agaroverfladen med swaben således at en ensartet vækst vil fremkomme. Lad pladen tørre før **MIC Test Strip** lægges på.
5. Læg **MIC Test Strip** på agarpladen med MIC skalaen op og koden mod pladens kant.
Sørg for at der ikke findes luftbobler mellem strimpen og pladen, brug eventuelt en steril pincet.
Efter **MIC Test Strip** er lagt på pladen, må den ikke flyttes.
6. Inkuber pladen med bunden op under optimale forhold for mikroorganismen.

TOLKNING AF RESULTATERNE

Efter inkubation aflæses MIC værdien ($\mu\text{g/mL}$) hvor inhibitionsellipsen skærer MIC skalaen på strimpen (ved skæringspunkt mellem 2 værdier rundes op)

MIC breakpoints til definition af følsomhedskategorier fra CLSI eller EUCAST kan benyttes til tolkning af MIC værdier.

MIC Test Strip værdier på halve fortyndingsskridt skal altid rundes op til nærmeste hele fortyndingsværdi før inddeling i følsomhedskategorier (S-I-R tolkning). En oversigt med CLSI og EUCAST fortolkningskriterier findes i Tabel nr. 1.

KLINISK TOLKNING

MIC Test Strip er til in vitro diagnostik, og kan ikke overføres til in vivo forhold.

Alligevel viser testen forholdet mellem koncentration af anti-mikrobielle stoffer i mediet og vækst af organismen.

KVALITETSKONTROL

Hvert lot **MIC Test Strip** testes grundigt i overensstemmelse med CLSI standarder.

FORSIGTIGHEDSREGLER

MIC Test Strip er ikke klassificeret som skadelig. "Safety datasheet" medfølger idet **MIC Test Strip** indeholder anti-mikrobielle stoffer, som kan forårsage overfølsomhed ved direkte kontakt.

MIC Test Strip er til in vitro diagnostisk brug. Strippene skal bruges i overensstemmelse med gældende regler for arbejde med patogene organismer samt anti-mikrobielle stoffer.

OPBEVARING

Uåbnet skal **MIC Test Strip** blisterpakker opbevares ved -20°C . Opbevaringsrør indeholdende **MIC Test Strip** skal opbevares ved $2-8^{\circ}\text{C}$ i højst 7 dage.

MIC Test Strip må ikke udsættes for voldsomme temperaturudsving, lige som de ikke må udsættes for ekstrem varme.

Må ikke bruges efter holdbarhedsdatoen.

Strips der viser tegn på uregelmæssighed bør kasseres øjeblikkeligt.

Bortskaffelse

Ubrugte **MIC Test Strip** bortskaffes i overensstemmelse med til enhver tid gældende regler.

Brugte **MIC Test Strips** samt plader bortskaffes efter til enhver tid gældende regler for bortskaffelse af potentielt infektiøst materiale.

Τεχνική ποσοτικού προσδιορισμού της ελάχιστης ανασταλτικής συγκέντρωσης (MIC)

ΠΕΡΙΓΡΑΦΗ

Το MIC Test Strip είναι ένας ποσοτικός προσδιορισμός της ελάχιστης ανασταλτικής συγκέντρωσης (MIC) αντιμικροβιακών παραγόντων έναντι μικροοργανισμών για την ανίχνευση μηχανισμών ανθεκτικότητας.

Τα MIC Test Strip είναι χάρτινες ταινίες με ιδιαίτερα χαρακτηριστικά τα οποία είναι εμποτισμένα με προκαθορισμένη και διαβαθμισμένη συγκέντρωση αντιβιοτικών κατά μήκος 15 πτυχών του strip με αντίστοιχες αραιώσεις από μια συμβατική MIC μέθοδο. Στη μια πλευρά του strip αναγράφεται η MIC κλίμακα σε $\mu\text{g/ml}$ και ο κωδικός αναγνώρισης του αντιμικροβιακού παράγοντα. Για την ανίχνευση των ΕΦΒΑ (Ευρέως Φάσματος β -Λακταμασών) και των ΜΒΑ (Μέταλλο- β -Λακταμασών), το διπλό κλινές που εκτείνεται αντιδιαμετρικά απ τα δύο άκρα της ταινίας προς το κέντρο, φέρει τα κατάλληλα διαγνωστικά αντιδραστήρια. Το MIC Test Strip είναι διαθέσιμα σε μεγάλη ποικιλία συνθέσεων. Κάθε σύνθεση είναι διαθέσιμη σε πακέτα των 10, 30 και 100 test.

ΠΕΡΙΕΧΟΜΕΝΑ

Η συσκευασία των 10 test περιέχει 10 ταινίες, ατομικά συσκευασμένες σε φακέλους με αφυγραντικό και ένα φύλλο οδηγιών.

Η συσκευασία των 30 test περιέχει 30 ταινίες, ατομικά συσκευασμένες σε φακέλους με αφυγραντικό και ένα φύλλο οδηγιών.

Η συσκευασία των 100 test περιέχει 10 φακέλους με αφυγραντικό με 10 ταινίες ανά φάκελο και ένα φύλλο οδηγιών. Η συσκευασία των 100 test περιέχει επιπλέον και ένα σωληνάριο για αποθήκευση.

ΑΡΧΗ ΤΗΣ ΜΕΘΟΔΟΥ

Όταν το MIC Test Strip εφαρμόζεται στην επιφάνεια ενός εμβολιασμένου agar η προκαθορισμένη εκθετική διαβάθμιση του αντιμικροβιακού παράγοντα μεταφέρεται άμεσα στο σώμα του agar.

Μετά από 18 ή παραπάνω ώρες επώασης, μια συμμετρική ανασταλτική έλλειψη εστιάζεται κατά μήκος της περιοχής που έχει τοποθετηθεί το strip. Η MIC είναι άμεσα αναγνώσιμη από τη διαβάθμιση σε $\mu\text{g/dl}$ στο σημείο όπου η βάση της ανασταλτικής έλλειψης τέμνει το MIC Test Strip.

Άλλες μορφολογίες ανάπτυξης/αναστολής είναι δυνατόν να παρατηρηθούν για μεθόδους ανίχνευσης αντοχής.

ΣΥΝΘΕΣΗ

Τα strips είναι κατασκευασμένα από χαρτί υψηλής ποιότητας και κάθε strip είναι εμποτισμένο με προκαθορισμένες διαβαθμίσεις συγκεντρώσεων 15 πτυχών με αραιωμένους συντελεστές αντιβιοτικών.

ΣΥΛΛΟΓΗ ΚΑΙ ΔΙΑΤΗΡΗΣΗ ΔΕΙΓΜΑΤΩΝ

Οι αποικίες οι οποίες θα υποβληθούν σε αξιολόγηση ελάχιστης ανασταλτικής συγκέντρωσης έχουν συλλεχθεί από θρεπτικά υλικά στα οποία έχουμε εναποθέσει το προς εξέταση δείγμα. Στην περίπτωση ποικίλων αποικιών το μικροβιακό στέλεχος πρέπει να καθαριστεί πριν τον εμβολιασμό.

ΔΙΑΔΙΚΑΣΙΑ ΤΕΣΤ

1. Αφήστε τον κλειστό φάκελο να έρθει σε θερμοκρασία δωματίου πριν τον ανοίξετε, ώστε να ελαχιστοποιηθεί η συγκέντρωση υγρασίας στην ταινία.
2. Κάντε λήψη 4 ή 5 απομονωμένων και μορφολογικά παρόμοιων αποικιών και εναποθέστε σε 5 ml κατάλληλου εναιωρήματος. Εκλεκτικοί μικροοργανισμοί θα πρέπει να μεταφερθούν στο broth και να χρησιμοποιηθούν μέσα σε 15 λεπτά.
3. Συγκρίνετε τη θολερότητα με την κατάλληλη Mc Farland κλίμακα.
4. Βυθίστε ένα αποστειρωμένο στυλέο στο μέσο μεταφοράς καλλιερχειών ή σε ένα αραιωμένο διάλυμα του και στραγγίστε το στα τοιχώματα του σωληναρίου για να εξαλείψετε την περίσσεια υγρού.
5. Οδηγήστε το κατά μήκος της επιφάνειας του θρεπτικού υλικού με τέτοιο τρόπο σαν να έχει παραχθεί σ' αυτό. Αφήστε την περίσσεια υγρασίας να απορροφηθεί και βεβαιωθείτε ότι η επιφάνεια είναι απολύτως στεγνή πριν απλώσετε τα strip.
6. Απλώστε το strip στην επιφάνεια του agar με την κλίμακα MIC προς τα επάνω και πιέστε το με μια αποστειρωμένη σιμπίδα στην επιφάνεια του agar και βεβαιωθείτε ότι ολόκληρο το μήκος της διαβάθμισης των αντιβιοτικών είναι σε απόλυτη επαφή με την επιφάνεια του agar. Από τη στιγμή που έχετε απλώσει το strip

7. Επώαστε τα τρυβλία σε ανεστραμμένη θέση σε συνθήκες κατάλληλες για τους μικροοργανισμούς.

8. Βάλτε τα μη χρησιμοποιημένα strip στο σωληνάριο που περιέχεται στο κουτί.

ΕΡΜΗΝΕΙΑ ΑΠΟΤΕΛΕΣΜΑΤΩΝ

Στο τέλος της επώασης διαβάστε την τιμή MIC εκεί που η άκρη της ανασταλτικής έλλειψης τέμνει το strip. Τα σημεία διακοπής ή αναστολής λειτουργίας της ελάχιστης ανασταλτικής συγκέντρωσης για τον προσδιορισμό των κατηγοριών ευαισθησίας όπως προβλέπονται από την CLSI ή EUCAST μπορούν να χρησιμοποιηθούν για την ερμηνεία των τιμών MIC. Στρογγυλοποιήστε πάντα την τιμή από το MIC Test Strip στην αμέσως επόμενη υψηλότερη τιμή πριν την κατηγοριοποίηση. Μια επισκόπηση ερμηνευτικών κριτηρίων από την CLSI και EUCAST παρέχεται στον πίνακα 1.

ΚΛΙΝΙΚΗ ΕΡΜΗΝΕΙΑ

Η δοκιμασία MIC Test Strip που εφαρμόζεται in vitro δε μπορεί να αναπαράγει συνθήκες in vivo. Παρόλα αυτά δείχνει την επίδραση της συγκέντρωσης του αντιβιοτικού, η οποία ποικίλλει ανάλογα με το θρεπτικό υλικό και σε συνάρτηση με την ανάπτυξη μικροβιακού πληθυσμού. Η τελική επιλογή του αντιβιοτικού που παρέχεται στον ασθενή είναι στην ευθύνη του κλινικού γιατρού που κατέχει όλες τις πληροφορίες για τον ασθενή.

ΠΟΙΟΤΙΚΟΣ ΕΛΕΓΧΟΣ

Κάθε παρτίδα MIC Test Strip υποβάλλεται σε σχολαστικούς και διεξοδικούς ελέγχους σε συμμόρφωση με τα πρότυπα CLSI χρησιμοποιώντας τα βακτηριδιακά στελέχη που εμφανίζονται στον πίνακα 1.

ΠΡΟΦΥΛΑΞΕΙΣ

Το MIC Test Strip δε μπορεί να ταξινομηθεί ως επικίνδυνο σύμφωνα με την ισχύουσα νομοθεσία αλλά υπάγεται στο ειδικό πεδίο εφαρμογής όπου το έντυπο ασφάλειας πρέπει να παρέχεται γιατί μπορεί να προκαλέσει φαινόμενα δερματολογικά ευαίσθητα όταν έρθει σε επαφή με το δέρμα.

Το MIC Test Strip είναι προϊόν μιας χρήσης. Το MIC Test Strip χρησιμοποιείται ως διαγνωστικό in vitro προϊόν και προορίζεται για επαγγελματική χρήση. Πρέπει να χρησιμοποιείται στο εργαστήριο από κατάλληλα εκπαιδευμένο προσωπικό χρησιμοποιώντας εγκεκριμένες μεθόδους αποστείρωσης και ασφάλειας για παθογείς παράγοντες.

ΦΥΛΑΞΗ

Η μη ανοιγμένη συσκευασία των MIC Test Strips θα πρέπει να φυλάσσεται στους -20°C έως την ημερομηνία λήξης της. Οι υπόλοιπες ταινίες από μια ανοιγμένη συσκευασία θα πρέπει να φυλάσσονται στους $2-8^{\circ}\text{C}$ στο αεροστεγές σωληνάριο που περιέχει αφυγραντικό, έως την 7 ημέρες. Μην αποθηκεύετε τις ταινίες πλησίον πηγών ζέστης και μην τις εκθέτετε σε μεγάλες διαφορές θερμοκρασίας. Μην τις χρησιμοποιείτε πέραν αυτής της ημερομηνίας. Απορρίψτε τις εάν εμφανίσουν σημεία αλλοίωσης.

ΕΞΑΛΕΙΨΗ ΧΡΗΣΙΜΟΠΟΙΗΜΕΝΩΝ ΥΛΙΚΩΝ

Μετά τη χρήση το MIC Test Strip και το υλικό που ήρθε σε επαφή με το δείγμα πρέπει να απολυμαίνονται και να διαχειρίζονται σύμφωνα με τις τρέχουσες τεχνικές του εργαστηρίου για την απολύμανση και αχρήστευση πιθανά μολυσμένων υλικών.

BESKRIVNING

MIC Test Strip är en kvantitativ analys för att bestämma minsta hämmande koncentration "Minimum Inhibitory Concentration" (MIC) för antimikrobiellt agens mot mikroorganismer och för detektion av resistensmekanismer. **MIC Test Strip** är ett pappersstrips, med speciella egenskaper* som är impregnerad med en fördefinierad koncentrationsgradient av antibiotika motsvarande 15 tvåstegs spädningar av en konventionell MIC metod.

På den ena sidan av stripset anges MIC skalan i $\mu\text{g/mL}$ och en kod som identifierar antimikrobiellt agens.

För ESBL (Extended Spectrum Beta Lactamase) och MBL (Metallo Beta Lactamase) detektion innehåller den dubbelsidiga gradienten lämpliga diagnostiska reagens.

MIC Test Strips finns tillgänglig i ett stort antal konfigurationer. Varje konfiguration finns tillgänglig i förpackningsstorlekar om 10, 30 och 100 test.

INNEHÅLL I FÖRPACKNINGEN

10-test förpackningen innehåller 10 strips individuellt förpackade med torkmedel samt ett instruktionsblad.

30-test förpackningen innehåller 30 strips individuellt förpackade med torkmedel och ett instruktionsblad.

100-test förpackningen innehåller 10 stycken förpackningar med torkmedel vardera innehållande 10 strips samt ett instruktionsblad. 100-test förpackningen innehåller även ett förvaringsrör.

METODPRINCIP

När **MIC Test** stripset är applicerat på den inokulerade agarytan överförs den exponentiella gradienten av dess antimikrobiella agens omedelbart till agar.

Efter 18 timmars inkubation, eller mer, formeras en symmetrisk hämningselips centrerad längs remsan. MIC avläses direkt från skalan i $\mu\text{g/mL}$ vid skärningspunkten mellan hämningselipsen och **MIC Test Stripset**.

Även andra växt/inhiberingsfenomen kan ses för resistensbestämningsmetoder.

SAMMANSÄTTNING

Stripsen är tillverkad av högkvalitativt papper och varje strips är impregnerad med en fördefinierad koncentrationsgradient motsvarande en 15 tvåstegs spädning av antibiotiskt agens.

INSAMLING OCH FÖRVARING AV PROV

De kolonier som skall användas för utvärdering av minsta hämmande koncentration (MIC) tas från odlingsmedium som tidigare har svabbats med det prov som skall undersökas. När det förekommer blandade kolonier måste bakteriestammarna renas före inokulation.

TESTPROCEDUR

1. För att minimera kondensation på stripsen, låt öppnad förpackning uppnå rumstemperatur innan den öppnas.
2. Svabba 4 till 5 noga isolerade och morfologiskt liknande kolonier med ett kulturmedium och suspendera dem i 5 mL av lämpligt suspensionsmedium. Krävande mikroorganismer skall suspenderas i buljong och användas inom 15 minuter.
3. Jämför grumligheten mot lämplig McFarland standard.
4. Doppa en steril bomullspinne i buljongen eller annan utspädd form och tryck den mot väggen i provröret för att eliminera överskottsvätska.
5. Stryk pinnen mot agarytan i plattan för att skapa en jämn växt; låt överskottsfukt absorberas och säkerställ att ytan är helt torr innan stripset appliceras.
6. Applicera stripset på agarytan med MIC skalan uppåt och artikel koden mot utsidan av plattan. Pressa med en steril pincett på agarytan och säkerställ att hela antibiotika gradienten är helt i kontakt med agarytan, Flytta inte stripset när den kommit i kontakt med agarytan.
7. Inkubera plattan upp och ner i lämplig miljö för mikroorganismen.
8. Lägg de oanvända strips i röret som finns inkluderat i förpackningen.

UTVÄRDERING AV RESULTAT

Vid slutet av inkubationen läses MIC värdena där kanten av hämningselipsen skär stripset (skärningspunkten mellan två skalsegment skall avrundas upp till det högre värdet). MIC brytpunkten för att definiera känslighetskategorier som kan användas för tolkning av MIC värdet tillhandahålls av CLSI eller EUCAST.

Avrunda alltid **MIC Test Stripset** halva spädningssteg upp till närmaste hela två-stegsvärde före känslighetsindelning. En översikt av CLSI och EUCAST brytpunkts kriterier tillhandahålls i Tabell 1.

ESBL och MBL detektion

MIC förhållandet ≥ 8 för de två reagensen, fantomzon eller deformation av ellipserna bekräftar närvaro av ESBL eller MBL.

KLINISK TOLKNING

MIC Test Strips utförda *in vitro* reproducerar inte exakt *in vivo* förhållanden. Trots detta visar det sig att effekt av en koncentration av ett antibiotikum, varierar i odlingsmedium i relation till växt hos den mikrobiella populationen. Det slutliga valet av antibiotika för behandling av patient ligger på behandlande läkare som har all information om patienten.

KVALITETSKONTROLL

Varje batch av **MIC Test Strips** genomgår en precis och noggrann kontroll i överensstämmelse med CLSI standards vid användning bakteriestammar som indikeras i Tabell 1.

FÖRSIKTIGHETSÅTGÄRDER

MIC Test Strips klassificeras inte som farliga enligt gällande lagstiftning. De faller dock inom det speciella applikationsområde där ett säkerhetsdatablad måste tillhandahållas. Detta eftersom de kan orsaka allergi hos känsliga personer om de kommer i kontakt med huden.

MIC Test Strips är engångsprodukt. **MIC Test Strips** är endast avsedda för *in vitro* diagnostik och för professionell användning. De skall endast användas i laboratoriet av personal utbildad i aseptiska och säkra metoder för patogener.

FÖRVARING

Öppnad förpackning med **MIC Test Strips** skall förvaras vid -20°C fram till angivet utgångsdatum.

Överblivna **MIC Test Strips** från en öppnad förpackning skall förvaras högst 7 dagar vid $2-8^{\circ}\text{C}$.

Förvara inte i närheten av värmekälla och utsätt dem inte för stora temperaturvariationer.

Använd inte efter detta datum.

Kastas bort om de uppvisar spår av försämring.

HANtering AV ANVÄNT MATERIAL

MIC Test Strips samt material som kommit i kontakt med provet hanteras enligt gällande laboratoriepraxis för dekontamination och avfallshantering av potentiellt infekterat material.

BIBLIOGRAFIA / BIBLIOGRAPHY / BIBLIOGRAPHIE / BIBLIOGRAPHIE / BIBLIOGRAFIA / BIBLIOGRAFIA / LITTERATUR / LITERATÚRA / LITERATURA / BIBLIOGRAFI / BIBΛΙΟΓΡΑΦΙΑ / BIBLIOGRAFI

- CLSI. Performance Standards for Antimicrobial Susceptibility Testing; 27th ed. CLSI Supplement M100S. Wayne, PA: Clinical and Laboratory Standards Institute; 2017.
- CLSI. Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria that Grow Aerobically; Approved Standard - Tenth Edition. CLSI document M07-A10. Wayne, PA: Clinical and Laboratory Standards Institute; 2015.
- CLSI. Methods for Dilution Antimicrobial Susceptibility Testing of Anaerobic Bacteria. Approved Standard - Seventh Edition. CLSI document M11-A7. Wayne, PA: Clinical and Laboratory Standards Institute; 2007.
- CLSI. Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Approved Standard - Third Edition. CLSI document M27-A3. Wayne, PA: Clinical and Laboratory Standards Institute; 2008.
- CLSI. Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Fourth Informational Supplement. CLSI document M27-S4. Wayne, PA: Clinical and Laboratory Standards Institute; 2012.
- CLSI. Performance Standards for Antimicrobial Disk and Dilution Susceptibility Tests for Bacteria Isolated From Animals; Approved Standard - Third Edition. CLSI document M31-A3. Wayne, PA: Clinical and Laboratory Standards Institute; 2008.
- The European Committee on Antimicrobial Susceptibility Testing. Breakpoint tables for interpretation of MICs and zone diameters. Version 7.0, 2017. <http://www.eucast.org>
- The European Committee on Antimicrobial Susceptibility Testing. Antifungal Agents. Breakpoint tables for interpretation of MICs. Version 8.0, 2015. <http://www.eucast.org>

- Savini, V. et al. (2016). Daptomycin-resistant *Staphylococcus pettenkoferi* of human origin. *Acta Biochim Pol*; 63(2): 297-301.
- Koeth, L. M. et al. (2016). Evaluation of Ceftolozane-Tazobactam MIC Test Strip Compared to Broth Microdilution MIC for Enterobacteriaceae and *Pseudomonas aeruginosa*. ASM Microbe poster.
- Koeth, L. M. et al. (2016). Multi-Site Evaluation of Dalbavancin and Vancomycin MIC Test Strip Compared To Broth Microdilution MICs. ASM Microbe poster.
- Carretto, E. et al. (2016). Multicentric evaluation of the reliability and the reproducibility of synergy testing using the MIC test strip - synergy application system (MTS-SAS™). ECCMID poster 1009
- Koeth, L. M. et al. (2015) Evaluation of Dalbavancin MIC Test Strip (MTS) Compared to Broth Microdilution MIC for Relevant Gram Positive Isolates. ICAAC poster D-1138.
- Savini, V. et al. (2014). Liofilchem® Chromatic VRE and vancomycin MIC Test Strip detected glycopeptide resistance in a vanB neonatal *Enterococcus faecium* isolate showing alternate vancomycin susceptibility and resistance with bioMérieux Vitek2. *Int J Clin Exp Pathol*; 7(9):6274-6277.
- Canton, R. et al. (2014). Determination of the sensitivity and specificity of the MIC Test Strips (MTS) mechanisms of detection against in-house methods for 644 multi-drug resistant (MDR) strains: a European multi-centre study. ECCMID poster 1009.
- D'Humières, C. et al (2014). Direct determination of antimicrobial susceptibility of Gram Negative Bacilli from respiratory samples on chromogenic agar plates with gradient antibiotic strips. ECCMID poster 348.
- Tyrrell, J. and Walsh, T.R. (2014). Efficacy of Fosmidomycin alone and in combination with colistin, tigecycline and rifampicin against multi-drug resistant and extensively drug resistant Enterobacteriaceae. ECCMID poster 235.
- Walsh, T. et al. (2013). Synergistic effects of rifampicin, nitrofurantoin, fosfomycin and colistin against NDM-1 positive *Klebsiella pneumoniae* and *Escherichia coli* using the new MTS synergy method. ECCMID poster 1553.
- Walsh, T.R. et al. (2013). Evaluation of MIC Test Strips (MTS) gradient-diffusion system for susceptibility testing of NDM-1 positive *Klebsiella pneumoniae* and *Escherichia coli*. ECCMID poster 1554.
- Meletiadis, J. et al. (2013). Evaluation of gradient concentration strips for in vitro combination testing of antifungal combinations against *Candida* spp. ECCMID poster 976.
- Meletiadis, J. et al. (2013). Evaluation of strips with concentration gradient of antifungal agents for the susceptibility determination of *Candida* strains ECCMID poster 1583.
- Brocco, F. et al. (2013). Evaluation of a new method for detecting KPC-producing bacteria based on the combination of a screening medium and a gradient diffusion system. ECCMID poster eP690.
- M'Zali, F.H. et al. (2013). A novel, direct susceptibility testing method of sonicated vascular prosthetic graft samples by combination of Liofilchem® MIC Test Strip and Chromatic™ agar plates. ECCMID poster 1562.
- Haldorsen, B. C. et al. (2012). Agreement of the MIC Test Strip vs. Etest in the MIC determination of *Streptococcus pneumoniae*. ECCMID poster 1658.
- Rossolini, G.M. et al. (2011). Evaluation of a new gradient-diffusion system for MIC determination with Gram-negative pathogens. ECCMID, poster 572.
- Stefani, S. et al (2011). A new reliable screening method for the evaluation of VISA and hVISA strains by "Vancomycin-Teicoplanin MIC Test Strip" (VTMTS). ECCMID poster 776.

TABELLA DEI SIMBOLI / TABLE OF SYMBOLS / TABLEAU DES SYMBOLES / SYMBOLE / TABLA DE SIMBOLOS / TABELA DE SÍMBOLOS / SYMBOLFORKLARINGER / TABUĽKA SYMBOLOV / TABULKA SYMBOLŮ / SYMBOLTAVLE / ΠΙΝΑΚΑΣ ΣΥΜΒΟΛΩΝ / SYMBOLER

LOT **It:** Codice del lotto / **En:** Batch code / **Fr:** Numéro de lot / **De:** Charge / **Es:** Código del lote / **Pt:** Código do lote / **Nn:** Batch-nummer / **Sk:** Číslo šarže / **Cs:** Číslo šarže / **Da:** Lot nr. / **El:** Κωδικός παρτίδας / **Sv:** Lot nummer



It: Fabbricante / **En:** Manufacturer / **Fr:** Fabricant / **De:** Hersteller / **Es:** Fabricante / **Pt:** Fabricante / **Nn:** Produsent / **Sk:** Výrobca / **Cs:** Výrobce / **Da:** Producent / **El:** Κατασκευαστής / **Sv:** Tillverkare

REF **It:** Numero di catalogo / **En:** Catalogue number / **Fr:** Numéro du catalogue / **De:** Artikelnummer / **Es:** Número de catálogo / **Pt:** Número de catálogo / **Nn:** Artikelnummer / **Sk:** Katalógové číslo / **Cs:** Katalogové číslo / **Da:** Produkt nr. / **El:** Αριθμός καταλόγου / **Sv:** Artikel nummer



It: Utilizzare entro / **En:** Use by / **Fr:** Date d'approbation de l'enregistrement / **De:** Siehe Verfallsdatum auf dem Etikett / **Es:** Caducidad / **Pt:** Prazo de validade / **Nn:** Holdbarhetsdato / **Sk:** Použite do / **Cs:** Použitelné do / **Da:** Holdbarhedsdato / **El:** Χρήση έως / **Sv:** Använd senast

IVD **It:** Dispositivo medico diagnostico *in vitro* / **En:** *In Vitro* Diagnostic Medical Device / **Fr:** Utilisation pour diagnostic *in vitro* / **De:** für *In Vitro* Diagnostik / **Es:** Dispositivo de diagnóstico *in vitro* / **Pt:** Dispositivo de diagnóstico *in Vitro* / **Nn:** *in vitro* medisinsk diagnostikk / **Sk:** Len na diagnostiku *In Vitro* / **Cs:** Určeno pro *in vitro* diagnostiku / **Da:** Til *In Vitro* diagnostisk brug / **El:** Ιατρική διαγνωστική συσκευή *in vitro* / **Sv:** För *invitro* diagnostik



It: Contenuto sufficiente per <n> saggi / **En:** Contains sufficient for <n> tests / **Fr:** Contenu suffisant pour <n> tests / **De:** Enthält Material für <n> Tests, siehe Etikett / **Es:** Contenido suficiente para <n> test / **Pt:** Conteúdo suficiente para <n> testes / **Nn:** Inneholdet er tilstrekkelig til <n> prøver / **Sk:** Balenie obsahuje <n> testov / **Cs:** Obsah dostatečný pro <n> testů / **Da:** Antal test indeholdt / **El:** Περιεχόμενο επαρκές για <n> δοκίμια / **Sv:** Innehåller <n> tester



It: Attenzione, vedere le istruzioni per l'uso / **En:** Caution, consult accompanying documents / **Fr:** Attention, consulter les instructions d'utilisation / **De:** Vorsicht, Begleitdokumente beachten / **Es:** Atención, leer las instrucciones de uso / **Pt:** Atenção, ler as instruções de utilização / **Nn:** Forsiktighet, kfr. medfølgende dokumentasjon / **Sk:** Upozornenie, preštudujte priložené informácie / **Cs:** Pozor, nahlédněte do přiložených dokumentů / **Da:** Bemærkning, se produktvejledning / **El:** Προσοχή, δείτε τις οδηγίες χρήσης / **Sv:** Varning, konsultera medföljande dokumentation



It: Limiti di temperatura / **En:** Temperature limitation / **Fr:** Limite de température / **De:** Temperaturbereich / **Es:** Límite temperatura de almacenamiento / **Pt:** Limite temperatura de conservação / **Nn:** Temperaturområde / **Sk:** Teplota skladovania / **Cs:** Rozmezí teplot / **Da:** Opbevaringstemperatur / **El:** Περιορισμοί θερμοκρασίας / **Sv:** Temperatur begränsningar



It: Limite superiore di temperatura / **En:** Upper limit of temperature / **Fr:** Limite supérieure de température / **De:** Temperaturobergrenze / **Es:** Limite superior de temperatura / **Pt:** Limite superior de temperatura / **Nn:** Øvre grense av temperatur / **Sk:** Horný limit teploty / **Cs:** Nejvyšší přípustná teplota / **Da:** Højeste temperatur / **El:** Ανώτερο όριο θερμοκρασίας / **Sv:** Högsta temperaturen



It: Non riutilizzare / **En:** Do not reuse / **Fr:** Ne pas réutiliser / **De:** Nicht zur Wiederverwendung / **Es:** No reutilizare / **Pt:** Não reutilizar / **Nn:** Ikke bruk / **Sk:** Na jednorazové použitie / **Cs:** Pro jednorázové použití / **Da:** Må ikke genbruges / **El:** Μην χρησιμοποιείτε ξανά / **Sv:** Återanvänd inte

MIC Test Strip for ANTIMICROBIAL susceptibility testing				
Description	µg/mL	code	packaging	ref.
MIC Test Strip AMIKACIN	0.016 - 256	AK	10 30 100	920181 92018 920180
MIC Test Strip AMOXICILLIN	0.016 - 256	AML	10 30 100	920211 92021 920210
MIC Test Strip AMOXICILLIN*-CLAVULANIC ACID (2/1) <i>CLSI recommended</i>	0.016 - 256*	AUG	10 30 100	920241 92024 920240
MIC Test Strip AMOXICILLIN*-CLAVULANIC ACID (2 µg/mL) <i>EUCAST recommended</i>	0.016 - 256*	AMC	10 30 100	921801 92180 921800
MIC Test Strip AMPICILLIN	0.016 - 256	AMP	10 30 100	920031 92003 920030
MIC Test Strip AMPICILLIN*-SULBACTAM (2/1) <i>CLSI recommended</i>	0.016 - 256*	AMS	10 30 100	920271 92027 920270
MIC Test Strip AMPICILLIN*-SULBACTAM (4 µg/mL) <i>EUCAST recommended</i>	0.016 - 256*	SAM	10 30 100	921811 92181 921810
MIC Test Strip AZITHROMYCIN	0.016 - 256	AZM	10 30 100	920301 92030 920300
MIC Test Strip AZTREONAM	0.016 - 256	ATM	10 30 100	920331 92033 920330
MIC Test Strip AZTREONAM	0.064 - 1024	ATM	10 30 100	921731 92173 921730
MIC Test Strip BACITRACIN	0.016 - 256	BA	10 30 100	920191 92019 920190
MIC Test Strip CEFACLOR	0.016 - 256	CEC	10 30 100	920361 92036 920360
MIC Test Strip CEFAZOLIN	0.016 - 256	KZ	10 30 100	921741 92174 921740
MIC Test Strip CEFEPIME	0.016 - 256	FEP	10 30 100	921261 92126 921260
MIC Test Strip CEFIXIME	0.016 - 256	CFM	10 30 100	920601 92060 920600
MIC Test Strip CEFOPERAZONE*-SULBACTAM (2/1)	0.016 - 256*	CPS	10 30 100	920231 92023 920230
MIC Test Strip CEFOTAXIME	0.002 - 32	CTX	10 30 100	920071 92007 920070
MIC Test Strip CEFOTAXIME	0.016 - 256	CTX	10 30 100	920061 92006 920060
MIC Test Strip CEFOTETAN	0.016 - 256	CTT	10 30 100	920201 92020 920200
MIC Test Strip CEFOXITIN	0.016 - 256	FOX	10 30 100	920661 92066 920660
MIC Test Strip CEFPIROME	0.016 - 256	CR	10 30 100	920081 92008 920080
MIC Test Strip CEFPODOXIME	0.016 - 256	PX	10 30 100	920051 92005 920050
MIC Test Strip CEFTAROLINE	0.002 - 32	CPT	10 30 100	920561 92056 920560
MIC Test Strip CEFTAROLINE	0.016 - 256	CPT	10 30 100	920491 92049 920490
MIC Test Strip CEFTAZIDIME (FDA Cleared)	0.016 - 256	CAZ	10 30 100	921381 92138 921380
MIC Test Strip CEFTAZIDIME*-AVIBACTAM (4 µg/mL)	0.016 - 256*	CZA	10 30 100	921391 92139 921390
MIC Test Strip CEFTIBUTEN	0.002 - 32	CTB	10 30 100	920581 92058 920580
MIC Test Strip CEFTIZOXIME	0.016 - 256	CZX	10 30 100	920161 92016 920160
MIC Test Strip CEFTOBIPROLE	0.002 - 32	BPR	10 30 100	921401 92140 921400
MIC Test Strip CEFTOLOZANE*-TAZOBACTAM (4 µg/mL) (FDA Cleared)	0.016 - 256*	C/T	10 30 100	921461 92146 921460

MIC Test Strip for ANTIMICROBIAL susceptibility testing				
Description	µg/mL	code	packaging	ref.
MIC Test Strip CEFTRIAXONE	0.016 - 256	CRO	10	920421
			30	92042
			100	920420
MIC Test Strip CEFTRIAXONE	0.002 - 32	CRO	10	920431
			30	92043
			100	920430
MIC Test Strip CEFUROXIME	0.016 - 256	CXM	10	921291
			30	92129
			100	921290
MIC Test Strip CEPHALOTHIN	0.016 - 256	KF	10	920391
			30	92039
			100	920390
MIC Test Strip CHLORAMPHENICOL	0.016 - 256	C	10	920751
			30	92075
			100	920750
MIC Test Strip CIPROFLOXACIN	0.002 - 32	CIP	10	920451
			30	92045
			100	920450
MIC Test Strip CLARITHROMYCIN	0.016 - 256	CLR	10	920481
			30	92048
			100	920480
MIC Test Strip CLINDAMYCIN (FDA Cleared)	0.016 - 256	CD	10	920721
			30	92072
			100	920720
MIC Test Strip CLOXACILLIN	0.016 - 256	CX	10	920441
			30	92044
			100	920440
MIC Test Strip COLISTIN	0.016 - 256	CS	10	921411
			30	92141
			100	921410
MIC Test Strip COLISTIN	0.064 - 1024	CS	10	921421
			30	92142
			100	921420
MIC Test Strip DALBAVANCIN (FDA Cleared)	0.002 - 32	DAL	10	921371
			30	92137
			100	921370
MIC Test Strip DAPTOMYCIN (Includes Ca ²⁺)	0.016 - 256	DAP	10	921451
			30	92145
			100	921450
MIC Test Strip DELAFLOXACIN (FDA Cleared)	0.002 - 32	DLX	10	920801
			30	92080
			100	920800
MIC Test Strip DORIPENEM	0.002 - 32	DOR	10	920401
			30	92040
			100	920400
MIC Test Strip DOXYCYCLINE	0.016 - 256	DXT	10	921561
			30	92156
			100	921560
MIC Test Strip ENROFLOXACIN	0.002 - 32	ENR	10	920131
			30	92013
			100	920130
MIC Test Strip ERTAPENEM	0.002 - 32	ETP	10	921571
			30	92157
			100	921570
MIC Test Strip ERYTHROMYCIN	0.016 - 256	E	10	920511
			30	92051
			100	920510
MIC Test Strip FLORFENICOL	0.016 - 256	FFC	10	920611
			30	92061
			100	920610
MIC Test Strip FOSFOMYCIN (Includes Glucose-6-Phosphate)	0.016 - 256	FOS	10	920781
			30	92078
			100	920780
MIC Test Strip FOSFOMYCIN (Includes Glucose-6-Phosphate)	0.064 - 1024	FOS	10	920791
			30	92079
			100	920790
MIC Test Strip FUSIDIC ACID	0.016 - 256	FU	10	920021
			30	92002
			100	920020
MIC Test Strip GATIFLOXACIN	0.002 - 32	GAT	10	920111
			30	92011
			100	920110
MIC Test Strip GEMIFLOXACIN	0.002 - 32	GEM	10	920351
			30	92035
			100	920350
MIC Test Strip GENTAMICIN	0.016 - 256	CN	10	920091
			30	92009
			100	920090
MIC Test Strip GENTAMICIN	0.064 - 1024	CN	10	920101
			30	92010
			100	920100
MIC Test Strip IMIPENEM	0.002 - 32	IMI	10	920541
			30	92054
			100	920540
MIC Test Strip KANAMYCIN	0.016 - 256	K	10	920341
			30	92034
			100	920340
MIC Test Strip LEVOFLOXACIN	0.002 - 32	LEV	10	920811
			30	92081
			100	920810

MIC Test Strip for ANTIMICROBIAL susceptibility testing				
Description	µg/mL	code	packaging	ref.
MIC Test Strip LINEZOLID	0.016 - 256	LNZ	10 30 100	921351 92135 921350
MIC Test Strip MARBOFLOXACIN	0.002 - 32	MAR	10 30 100	920621 92062 920620
MIC Test Strip MECILLINAM	0.016 - 256	MEC	10 30 100	920171 92017 920170
MIC Test Strip MEROPENEM (FDA Cleared)	0.002 - 32	MRP	10 30 100	920841 92084 920840
MIC Test Strip MEROPENEM	0.016 - 256	MRP	10 30 100	920851 92085 920850
MIC Test Strip METRONIDAZOLE	0.016 - 256	MTZ	10 30 100	920871 92087 920870
MIC Test Strip MOXIFLOXACIN	0.002 - 32	MXF	10 30 100	920901 92090 920900
MIC Test Strip MUPIROICIN	0.064 - 1024	MUP	10 30 100	920381 92038 920380
MIC Test Strip MINOCYCLINE	0.016 - 256	MN	10 30 100	920321 92032 920320
MIC Test Strip NALIDIXIC ACID	0.016 - 256	NA	10 30 100	921321 92132 921320
MIC Test Strip NETILMICIN	0.016 - 256	NET	10 30 100	920931 92093 920930
MIC Test Strip NITROFURANTOIN	0.032-512	F	10 30 100	920221 92022 920220
MIC Test Strip NORFLOXACIN	0.016 - 256	NOR	10 30 100	920961 92096 920960
MIC Test Strip OFLOXACIN	0.002 - 32	OFX	10 30 100	920991 92099 920990
MIC Test Strip OXACILLIN	0.016 - 256	OX	10 30 100	920151 92015 920150
MIC Test Strip PENICILLIN G	0.002 - 32	P	10 30 100	921031 92103 921030
MIC Test Strip PENICILLIN G	0.016 - 256	P	10 30 100	921021 92102 921020
MIC Test Strip PIPERACILLIN	0.016 - 256	PIP	10 30 100	921051 92105 921050
MIC Test Strip PIPERACILLIN*-TAZOBACTAM (4 µg/mL)	0.016 - 256*	TZP	10 30 100	921081 92108 921080
MIC Test Strip POLYMYXIN B	0.064 - 1024	PB	10 30 100	920041 92004 920040
MIC Test Strip QUINUPRISTIN-DALFOPRISTIN	0.002 - 32	QDA	10 30 100	920261 92026 920260
MIC Test Strip RIFAMPICIN	0.002 - 32	RD	10 30 100	920011 92001 920010
MIC Test Strip RIFAMPICIN	0.016 - 256	RD	10 30 100	920251 92025 920250
MIC Test Strip SOLITHROMYCIN (RUO)	0.002 - 32	SOL	10 30 100	921431 92143 921430
MIC Test Strip SPECTINOMYCIN	0.064 - 1024	SPC	10 30 100	920141 92014 920140
MIC Test Strip SPIRAMYCIN	0.002 - 32	SP	10 30 100	920461 92046 920460
MIC Test Strip STREPTOMYCIN	0.016 - 256	S	10 30 100	921121 92112 921120
MIC Test Strip STREPTOMYCIN	0.064 - 1024	S	10 30 100	921111 92111 921110
MIC Test Strip SULBACTAM	0.016 - 256	SUL	10 30 100	920281 92028 920280
MIC Test Strip SULFAMETHOXAZOLE	0.064 - 1024	SMX	10 30 100	920311 92031 920310

MIC Test Strip for ANTIMICROBIAL susceptibility testing				
Description	µg/mL	code	packaging	ref.
MIC Test Strip TEDIZOLID (FDA Cleared)	0.002 - 32	TZD	10	921361
			30	92136
			100	921360
MIC Test Strip TEICoplanin	0.016 - 256	TEC	10	920121
			30	92012
			100	920120
MIC Test Strip TELAVANCIN	0.002 - 32	TLV	10	920521
			30	92052
			100	920520
MIC Test Strip TELAVANCIN (FDA Cleared)	0.016 - 256	TLV	10	920531
			30	92053
			100	920530
MIC Test Strip TEMOCILLIN	0.064 - 1024	TMO	10	920291
			30	92029
			100	920290
MIC Test Strip TETRACYCLINE	0.016 - 256	TE	10	921141
			30	92114
			100	921140
MIC Test Strip TIAMULIN	0.002 - 32	TIA	10	922001
			30	92200
			100	922000
MIC Test Strip TICARCILLIN*-CLAVULANIC ACID (2 µg/mL)	0.016 - 256*	TTC	10	921171
			30	92117
			100	921170
MIC Test Strip TIGECYCLINE	0.016 - 256	TGC	10	921441
			30	92144
			100	921440
MIC Test Strip TILMICOSIN	0.002 - 32	TIL	10	922011
			30	92201
			100	922010
MIC Test Strip TOBRAMYCIN	0.016 - 256	TOB	10	921211
			30	92121
			100	921210
MIC Test Strip TOBRAMYCIN	0.064 - 1024	TOB	10	921201
			30	92120
			100	921200
MIC Test Strip TRIMETHOPRIM	0.002 - 32	TM	10	920371
			30	92037
			100	920370
MIC Test Strip TRIMETHOPRIM*-SULFAMETHOXAZOLE (1/19)	0.002 - 32*	SXT	10	921231
			30	92123
			100	921230
MIC Test Strip VANCOMYCIN (FDA Cleared)	0.016 - 256	VA	10	920571
			30	92057
			100	920570

RUO: For Research Use Only, not CE marked

CE Marking Unless otherwise indicated, all products intended to be used for clinical applications are CE marked according to the European Directive 98/79/EC for *In Vitro* Diagnostic Medical Devices.

MIC Test Strip for ANTIMYCOBACTERIAL susceptibility testing				
Description	µg/mL	code	packaging	ref.
MIC Test Strip ETHAMBUTOL	0.016 - 256	EB	10	921701
			30	92170
			100	921700
MIC Test Strip ETHIONAMIDE	0.016 - 256	ET	10	921721
			30	92172
			100	921720
MIC Test Strip ISONIAZIDE	0.016 - 256	IZ	10	921711
			30	92171
			100	921710

MIC Test Strip for ANTIFUNGAL susceptibility testing				
Description	µg/mL	code	packaging	ref.
MIC Test Strip AMPHOTERICIN B	0.002 - 32	AMB	10	921531
			30	92153
			100	921530
MIC Test Strip ANIDULAFUNGIN	0.002 - 32	AND	10	921551
			30	92155
			100	921550
MIC Test Strip CASPOFUNGIN	0.002 - 32	CAS	10	921541
			30	92154
			100	921540
MIC Test Strip FLUCONAZOLE	0.016 - 256	FLU	10	921471
			30	92147
			100	921470
MIC Test Strip FLUCYTOSINE	0.002 - 32	FC	10	921491
			30	92149
			100	921490
MIC Test Strip ISAVUCONAZOLE	0.002 - 32	IVU	10	921841
			30	92184
			100	921840
MIC Test Strip ITRACONAZOLE	0.002 - 32	ITC	10	921481
			30	92148
			100	921480
MIC Test Strip KETOCONAZOLE	0.002 - 32	KE	10	921511
			30	92151
			100	921510
MIC Test Strip MICAFUNGIN	0.002 - 32	MYC	10	921821
			30	92182
			100	921820
MIC Test Strip POSACONAZOLE	0.002 - 32	POS	10	921521
			30	92152
			100	921520
MIC Test Strip VORICONAZOLE	0.002 - 32	VO	10	921501
			30	92150
			100	921500

MIC Test Strip for Antimicrobial Resistance Testing				
Description	µg/mL	code	packaging	ref.
ESBL: confirmation of Extended Spectrum Beta-Lactamase				
MIC Test Strip CEFEPIME / CEFEPIME + CLAVULANIC ACID (4 µg/mL)	0.25-16 / 0.064-4	FEP/FEL	10 30 100	921611 92161 921610
MIC Test Strip CEFOTAXIME / CEFOTAXIME + CLAVULANIC ACID (4 µg/mL)	0.25-16 / 0.016-1	CTX/CTL	10 30 100	921601 92160 921600
MIC Test Strip CEFTAZIDIME / CEFTAZIDIME + CLAVULANIC ACID (4 µg/mL)	0.5-32 / 0.064-4	CAZ/CAL	10 30 100	921591 92159 921590
MBL: detection of Metallo Beta-Lactamase				
MIC Test Strip IMIPENEM / IMIPENEM + EDTA	4-256 / 1-64	IMI/IMD	10 30 100	921621 92162 921620
MIC Test Strip IMIPENEM / IMIPENEM + EDTA	0.125-8 / 0.032-2	IMI/IMD	10 30 100	921661 92166 921660
MIC Test Strip MEROPENEM / MEROPENEM + EDTA	0.125-8 / 0.032-2	MRP/MRD	10 30 100	921651 92165 921650
KPC detection				
MIC Test Strip MEROPENEM / MEROPENEM + PHENYLBORONIC ACID	0.125-8 / 0.032-2	MRP/MBO	10 30 100	921671 92167 921670
MIC Test Strip ERTAPENEM / ERTAPENEM + PHENYLBORONIC ACID	0.125-8 / 0.032-2	ETP/EBO	10 30 100	921681 92168 921680
AmpC detection				
MIC Test Strip CEFOTETAN / CEFOTETAN + CLOXACILLIN	0.5-32/0.5-32	CTT/CXT	10 30 100	921641 92164 921640
MIC Test Strip ERTAPENEM / ERTAPENEM + CLOXACILLIN	0.125-8 / 0.032-2	ETP/ECX	10 30 100	921691 92169 921690
GRD: Glycopeptide Resistance Detection				
MIC Test Strip VANCOMYCIN / TEICoplanin	0.5-32/0.5-32	VA/TEC	10 30 100	921631 92163 921630

Download the currently valid MIC Test Strip specific technical sheets for your applications:

Interpretative Criteria and Quality Control [click here](#)

FDA cleared items [click here](#)

Application Guide [click here](#)

MTS01 - Haemophilus influenzae [click here](#)

MTS02 - Fastidious Gram Positive Bacilli [click here](#)

MTS03 - Fastidious Gram Negative Bacilli [click here](#)

MTS04 - HACEK [click here](#)

MTS05 - Enterococci [click here](#)

MTS06 - Mould [click here](#)

MTS08 - Meningococci [click here](#)

MTS09 - Gram Negative Aerobes [click here](#)

MTS13 - Gonococci [click here](#)

MTS14 - Anaerobes [click here](#)

MTS16 - Campylobacter spp. [click here](#)

MTS19 - Streptococci [click here](#)

MTS20 - Staphylococci [click here](#)

MTS21 - Helicobacter pylori [click here](#)

MTS22- Nontuberculous Mycobacteria [click here](#)

MTS23 - Streptococcus pneumoniae [click here](#)

MTS24 - Yeast [click here](#)

MTS25 - Mycobacterium tuberculosis [click here](#)

MTS26 - ESBL [click here](#)

MTS27 - MBL [click here](#)

MTS28 - GRD [click here](#)

MTS29 - AmpC [click here](#)

MTS30 - Cidal-Static [click here](#)

MTS31 - Synergy Testing [click here](#)

MTS33 - Direct MIC [click here](#)

MTS34 - Enterococci VRE [click here](#)

MTS35 - KPC [click here](#)

MTS37 - Tedizolid [click here](#)

MTS38 - Dalbavancin [click here](#)

MTS39 - Ceftobiprole [click here](#)

MTS40 - Isavuconazole [click here](#)

MTS41 - Vancomycin [click here](#)

MTS42 - Ceftolozane-tazobactam [click here](#)

MTS43 - Ceftazidime-avibactam [click here](#)

MTS44 - Solithromycin [click here](#)

MTS45 - Fosfomycin [click here](#)

MTS47 - Cefepime [click here](#)



- The present MTS™ Interpretative Criteria and Quality Control table might be out of date. Check on-line for the latest update: https://www.liofilchem.com/images/brochure/mic_test_strip_patent/tabella_interpretazione.pdf
- The present MTS™ Interpretative Criteria and Quality Control table does not replace the official documents by CLSI, EUCAST and FDA.
- The present MTS™ Interpretative Criteria and Quality Control table has been produced in part under ECDC service contracts and made available by EUCAST at no cost to the user and can be accessed on the EUCAST website www.eucast.org. EUCAST recommendations are frequently updated and the latest versions are available at www.eucast.org.

Clinical

Antibiotic	CODE	CLSI			EUCAST			QUALITY CONTROL		MIC µg/mL	
		INTERPRETATIVE CRITERIA ¹	S≤	I	R≥	INTERPRETATIVE CRITERIA ²	S≤	R>			
AMIKACIN 0.016 - 256 µg/mL	AK	<i>Enterobacteriales</i>	16	32	64	<i>Enterobacteriales</i>	8	8	<i>S. aureus</i>	ATCC® 29213	1-4
		<i>P. aeruginosa</i>	16	32	64	<i>Pseudomonas</i> spp.	16	16	<i>E. faecalis</i>	ATCC® 29212	64-256
		<i>Acinetobacter</i> spp.	16	32	64	<i>Acinetobacter</i> spp.	8	8	<i>E. coli</i>	ATCC® 25922	0.5-4
		Other Non-Enterobacteriales	16	32	64	<i>S. aureus</i>	8	8	<i>P. aeruginosa</i>	ATCC® 27853	1-4
		FDA ⁴				Coagulase-negative staphylococci	8	8			
		<i>S. aureus</i>	16	32	64	PK/PD (Non-species related) breakpoints	1	1			
AMOXICILLIN 0.016 - 256 µg/mL	AML	<i>S. pneumoniae</i> (nonmeningitis)	2	4	8	<i>Enterobacteriales</i>	8	8	<i>K. pneumoniae</i>	ATCC® 700603	> 128
						<i>Enterococcus</i> spp.	4	8	<i>E. coli</i>	ATCC® 25922	2-8
						<i>S. pneumoniae</i> (iv, meningitis)	0.5	0.5	<i>S. pneumoniae</i>	ATCC® 49619	0.03-0.12
						<i>S. pneumoniae</i> (oral)	0.5	1	<i>H. influenzae</i>	ATCC® 49766	0.125-0.5
						Viridans group streptococci	0.5	2			
						<i>H. influenzae</i> (iv)	2	2			
						<i>H. influenzae</i> (oral)	0.001	2			
						<i>N. meningitidis</i>	0.12	1			
						Gram-positive anaerobes except <i>C. difficile</i>	4	8			
						Gram-negative anaerobes	0.5	2			
						<i>H. pylori</i>	0.12	0.12			
						<i>P. multocida</i>	1	1			
						<i>K. kingae</i>	0.125	0.125			
						PK/PD (Non-species related) breakpoints	2	8			
AMOXICILLIN*-CLAVULANIC ACID (2/1) 0.016 - 256* µg/mL CLSI recommended	AUG	<i>Enterobacteriales</i>	8	16	32	Not available			<i>E. faecalis</i>	ATCC® 29212	0.25-1
		<i>Haemophilus</i> spp.	4	-	8				<i>E. coli</i>	ATCC® 25922	2-8
		<i>S. pneumoniae</i> (nonmeningitis)	2	4	8				<i>E. coli</i>	ATCC® 35218	4-16
		Anaerobes	4	8	16				<i>K. pneumoniae</i>	ATCC® 700603	4-16
									<i>H. influenzae</i>	ATCC® 49247	2-16
							<i>S. pneumoniae</i>	ATCC® 49619	0.03-0.12		
							<i>B. fragilis</i>	ATCC® 25285	0.25-1		
							<i>B. thetaiotaomicron</i>	ATCC® 29741	0.25-1		

Antibiotic	CODE	CLSI				EUCAST			QUALITY CONTROL		
		INTERPRETATIVE CRITERIA ¹	S ≤	SDD MIC µg/mL	I R ≥	INTERPRETATIVE CRITERIA ²	S ≤	R >	MIC µg/mL	MIC µg/mL	
AMOXICILLIN-CLAVULANIC ACID 0.016/2 - 256/2 µg/mL EUCAST recommended	AMC	Not available				<i>Enterobacterales</i> <i>Enterobacterales</i> (uncomplicated UTI only) <i>Enterococcus</i> spp. <i>S. pneumoniae</i> (oral) <i>H. influenzae</i> (iv) <i>H. influenzae</i> (oral) <i>M. catarrhalis</i> Gram-positive anaerobes except <i>C. difficile</i> Gram-negative anaerobes <i>P. multocida</i> <i>B. pseudomallei</i> PK/PD (Non-species related) breakpoints	8 32 4 0.5 2 2 1 4 4 1 0.001 2	8 32 8 1 2 2 1 8 8	<i>E. coli</i> <i>H. influenzae</i> <i>E. coli</i> <i>S. pneumoniae</i>	ATCC® 25922 ATCC® 49766 ATCC® 35218 ATCC® 49619	2-8 0.125-0.5 4-32 0.03-0.12
AMPICILLIN 0.016 - 256 µg/mL	AMP	<i>Enterobacterales</i> <i>Enterococcus</i> spp. <i>Haemophilus</i> spp. <i>Streptococcus</i> spp. β-Hemolytic Group <i>Streptococcus</i> spp. Viridans Group <i>N. meningitidis</i> Anaerobes	8 8 1 0.25 0.25 0.12 0.5	16 - 2 - 0.5-4 0.25-1 1	32 16 4 - 8 2 2	<i>Enterobacterales</i> <i>Enterococcus</i> spp. <i>S. pneumoniae</i> (other than meningitis) <i>S. pneumoniae</i> (meningitis) Viridans group streptococci <i>H. influenzae</i> <i>N. meningitidis</i> Gram-positive anaerobes except <i>C. difficile</i> Gram-negative anaerobes <i>L. monocytogenes</i> <i>P. multocida</i> <i>Aerococcus sanguinicola</i> and <i>urinae</i> <i>K. kingae</i> PK/PD (Non-species related) breakpoints	8 4 0.5 0.5 0.5 1 0.12 4 0.5 1 1 0.25 0.06 2	8 8 2 0.5 2 1 1 8 2 1 1 0.25 0.06 8	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>E. coli</i> <i>K. pneumoniae</i> <i>H. influenzae</i> <i>S. pneumoniae</i> <i>H. influenzae</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 35218 ATCC® 700603 ATCC® 49247 ATCC® 49619 ATCC® 49766	0.5-2 0.5-2 2-8 > 32 > 128 2-8 0.06-0.25 0.06-0.25
AMPICILLIN*-SULBACTAM (2/1) 0.016 - 256* µg/mL CLSI recommended	AMS	<i>Enterobacterales</i> <i>Acinetobacter</i> spp. <i>Haemophilus</i> spp. Anaerobes	8 8 2 8	16 16 - 16	32 32 4 32	Not available			<i>E. coli</i> <i>E. coli</i> <i>K. pneumoniae</i> <i>H. influenzae</i> <i>B. fragilis</i> <i>B. thetaiotaomicron</i> <i>E. lenta</i>	ATCC® 25922 ATCC® 35218 ATCC® 700603 ATCC® 49247 ATCC® 25285 ATCC® 29741 ATCC® 43055	2-8 8-32 8-32 2-8 0.5-2 0.5-2 0.5-2
AMPICILLIN-SULBACTAM 0.016/4 - 256/4 µg/mL EUCAST recommended	SAM	Not available				<i>Enterobacterales</i> <i>Enterococcus</i> spp. <i>H. influenzae</i> <i>M. catarrhalis</i> Gram-positive anaerobes except <i>C. difficile</i> Gram-negative anaerobes PK/PD (Non-species related) breakpoints	8 4 1 1 4 4 2	8 8 1 1 8 8 8	<i>E. coli</i> <i>H. influenzae</i> <i>E. coli</i>	ATCC® 25922 ATCC® 49766 ATCC® 35218	1-4 0.06-0.25 16-128

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST			QUALITY CONTROL		
							INTERPRETATIVE CRITERIA ²			S≤	R>	MIC µg/mL
AZITHROMYCIN 0.016 - 256 µg/mL	AZM	<i>S. enterica</i> ser. Typhi	16	-	-	32	<i>Staphylococcus</i> spp.	1	2	<i>S. aureus</i>	ATCC® 29213	0.5-2
		<i>Shigella</i> spp.	8	-	16	32	Streptococcus groups A, B, C and G	0.25	0.5	<i>H. influenzae</i> (-CO ₂)	ATCC® 49247	1-4
		All staphylococci	2	-	4	8	<i>S. pneumoniae</i>	0.25	0.5	<i>H. influenzae</i> (+CO ₂)	ATCC® 49247	4-16
		<i>H. influenzae</i>	4	-	-	-	<i>M. catarrhalis</i>	0.25	0.5	<i>S. pneumoniae</i> (-CO ₂)	ATCC® 49619	0.06-0.25
		<i>N. gonorrhoeae</i>	1	-	-	-	<i>K. kingae</i>	0.25	0.25	<i>S. pneumoniae</i> (+CO ₂)	ATCC® 49619	0.5-2
		<i>S. pneumoniae</i>	0.5	-	1	2				<i>N. gonorrhoeae</i>	ATCC® 49226	0.25-1
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.5	-	1	2						
		<i>Streptococcus</i> spp. Viridans Group	0.5	-	1	2						
		<i>N. meningitidis</i>	2	-	-	-						
		AZTREONAM 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	ATM	<i>Enterobacterales</i>	4	-	8	16	<i>Enterobacterales</i>	1	4	<i>E. coli</i>
<i>P. aeruginosa</i>	8			-	16	32	<i>Pseudomonas</i> spp.	0.001	16	<i>P. aeruginosa</i>	ATCC® 27853	2-8
Other Non-Enterobacterales	8			-	16	32	<i>Aeromonas</i> spp.	1	4	<i>E. coli</i>	ATCC® 35218	0.03-0.12
<i>Haemophilus</i> spp.	2			-	-	-	PK/PD (Non-species related) breakpoints	4	8	<i>K. pneumoniae</i>	ATCC® 700603	8-64
CEFACLOR 0.016 - 256 µg/mL	CEC	<i>Enterobacterales</i>	8	-	16	32	<i>S. pneumoniae</i>	0.001	0.5	<i>S. aureus</i>	ATCC® 29213	1-4
		<i>Haemophilus</i> spp.	8	-	16	32	<i>H. influenzae</i>	0.5	0.5	<i>E. coli</i>	ATCC® 25922	1-4
		<i>S. pneumoniae</i>	1	-	2	4				<i>H. influenzae</i>	ATCC® 49766	1-4
CEFAZOLIN 0.016 - 256 µg/mL	KZ	<i>Enterobacterales</i> (systemic infections)	2	-	4	8	<i>Enterobacterales</i> (<i>E. coli</i> , and <i>Klebsiella</i> spp., except <i>K. aerogenes</i>)	0.001	4	<i>S. aureus</i>	ATCC® 29213	0.25-1
		<i>Enterobacterales</i> (uncomplicated UTIs due to <i>E. coli</i> , <i>K. pneumoniae</i> , and <i>P. mirabilis</i>) FDA ⁴	16	-	-	32	Viridans group streptococci	0.5	0.5	<i>E. coli</i>	ATCC® 25922	1-4
		<i>Enterobacteriaceae</i>	1	-	2	4	PK/PD (Non-species related) breakpoints	1	2			
CEFEPIME 0.016 - 256 µg/mL 0.002 - 32 µg/mL	FEP	<i>Enterobacterales</i>	2	4-8	-	16	<i>Enterobacterales</i>	1	4	<i>S. aureus</i>	ATCC® 29213	1-4
		<i>P. aeruginosa</i>	8	-	16	32	<i>Pseudomonas</i> spp.	0.001	8	<i>E. coli</i>	ATCC® 25922	0.016-0.12
		<i>Acinetobacter</i> spp.	8	-	16	32	<i>S. pneumoniae</i>	1	2	<i>P. aeruginosa</i>	ATCC® 27853	0.5-4
		Other non-Enterobacterales	8	-	16	32	Viridans group streptococci	0.5	0.5	<i>E. coli</i>	ATCC® 35218	0.008-0.06
		<i>Haemophilus</i> spp.	2	-	-	-	<i>H. influenzae</i>	0.25	0.25	<i>K. pneumoniae</i>	ATCC® 700603	0.5-2
		<i>N. gonorrhoeae</i>	0.5	-	-	-	<i>M. catarrhalis</i>	4	4	<i>K. pneumoniae</i>	ATCC® BAA-2814	≥ 32
		<i>S. pneumoniae</i> (meningitis)	0.5	-	1	2	<i>Aeromonas</i> spp.	1	4	<i>E. coli</i>	NCTC 13353	≥ 64
		<i>S. pneumoniae</i> (nonmeningitis)	1	-	2	4	PK/PD (Non-species related) breakpoints	4	8	<i>A. baumannii</i>	NCTC 13304	16-128
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.5	-	-	-				<i>H. influenzae</i>	ATCC® 49247	0.5-2
		<i>Streptococcus</i> spp. Viridans Group	1	-	2	4				<i>S. pneumoniae</i>	ATCC® 49619	0.03-0.25
		<i>Enterobacteriaceae</i>	2	-	4-8	16				<i>N. gonorrhoeae</i>	ATCC® 49226	0.016-0.06
		<i>P. aeruginosa</i>	8	-	-	16				<i>H. influenzae</i>	ATCC® 49766	0.03-0.125
		CEFIDEROCOL 0.016 - 256 µg/mL	FDC	<i>P. aeruginosa</i>	4	-	8	16	<i>P. aeruginosa</i>	2	2	<i>P. aeruginosa</i>
FDA ⁴												
<i>P. aeruginosa</i>	1			-	2	4						
CEFIXIME 0.016 - 256 µg/mL	CFM	<i>Enterobacterales</i>	1	-	2	4	<i>Enterobacterales</i>	1	1	<i>S. aureus</i>	ATCC® 29213	8-32
		<i>Haemophilus</i> spp.	1	-	-	-	<i>H. influenzae</i>	0.12	0.12	<i>E. coli</i>	ATCC® 25922	0.25-1
		<i>N. gonorrhoeae</i>	0.25	-	-	-	<i>M. catarrhalis</i>	0.5	1	<i>H. influenzae</i>	ATCC® 49247	0.12-1
							<i>N. gonorrhoeae</i>	0.12	0.12	<i>N. gonorrhoeae</i>	ATCC® 49226	0.004-0.03
								<i>H. influenzae</i>	ATCC® 49766	0.016-0.06		

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹				EUCAST INTERPRETATIVE CRITERIA ²			QUALITY CONTROL		MIC µg/mL
		S≤	SDD MIC µg/mL	I	R≥	S≤	R>	MIC µg/mL			
CEFOTAXIME 0.016 - 256 µg/mL 0.002 - 32 µg/mL	CTX	<i>Enterobacteriales</i>	1	2	4	<i>Enterobacteriales</i>	1	1	<i>S. aureus</i>	ATCC® 29213	1-4
		<i>Acinetobacter</i> spp.	8	16-32	64	<i>S. pneumoniae</i> (other than meningitis)	0.5	2	<i>E. coli</i>	ATCC® 25922	0.03-0.12
		Other Non-Enterobacteriales	8	16-32	64	<i>S. pneumoniae</i> (meningitis)	0.5	0.5	<i>P. aeruginosa</i>	ATCC® 27853	8-32
		<i>Haemophilus</i> spp.	2	-	-	Viridans group streptococci	0.5	0.5	<i>H. influenzae</i>	ATCC® 49247	0.12-0.5
		<i>N. gonorrhoeae</i>	0.5	-	-	<i>H. influenzae</i>	0.12	0.12	<i>S. pneumoniae</i>	ATCC® 49619	0.03-0.12
		<i>S. pneumoniae</i> (meningitis)	0.5	1	2	<i>M. catarrhalis</i>	1	2	<i>N. gonorrhoeae</i>	ATCC® 49226	0.016-0.06
		<i>S. pneumoniae</i> (nonmeningitis)	1	2	4	<i>N. gonorrhoeae</i>	0.12	0.12	<i>H. influenzae</i>	ATCC® 49766	0.004-0.016
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.5	-	-	<i>N. meningitidis</i>	0.12	0.12			
		<i>Streptococcus</i> spp. Viridans Group	1	2	4	<i>P. multocida</i>	0.03	0.03			
		<i>N. meningitidis</i>	0.12	-	-	<i>K. kingae</i>	0.12	0.12			
		Anaerobes	16	32	64	PK/PD (Non-species related) breakpoints	1	2			
		FDA ⁴									
		<i>Acinetobacter</i> spp.	1	2	4						
		Other Non-Enterobacteriaceae	1	2	4						
<i>H. influenzae</i> , <i>H. parainfluenzae</i>	1	-	-								
CEFOTETAN 0.016 - 256 µg/mL	CTT	<i>Enterobacteriales</i>	16	32	64	Not available			<i>S. aureus</i>	ATCC® 29213	4-16
		<i>N. gonorrhoeae</i>	2	4	8				<i>E. coli</i>	ATCC® 25922	0.06-0.25
		Anaerobes	16	32	64				<i>N. gonorrhoeae</i>	ATCC® 49226	0.5-2
		FDA ⁴							<i>B. fragilis</i>	ATCC® 25285	1-8
		<i>H. influenzae</i>	4	8	16				<i>B. thetaiotaomicron</i>	ATCC® 29741	16-128
		Enterobacteriaceae	4	8	16				<i>E. lenta</i>	ATCC® 43055	16-64
		Anaerobes	4	8	16						
		<i>N. gonorrhoeae</i>	4	8	16						
CEFOXITIN 0.016 - 256 µg/mL	FOX	<i>Enterobacteriales</i>	8	16	32	Not available			<i>S. aureus</i>	ATCC® 29213	1-4
		<i>Staphylococcus</i> spp.	4	-	8				<i>E. coli</i>	ATCC® 25922	2-8
		<i>N. gonorrhoeae</i>	2	4	8				<i>N. gonorrhoeae</i>	ATCC® 49226	0.5-2
		Anaerobes	16	32	64				<i>B. fragilis</i>	ATCC® 25285	2-8
		FDA ⁴							<i>B. thetaiotaomicron</i>	ATCC® 29741	8-64
		Enterobacteriaceae	4	8	16				<i>E. lenta</i>	ATCC® 43055	2-16
Anaerobes	4	8	16								
CEFPIROME 0.016 - 256 µg/mL	CR	Not available				Not available			<i>H. influenzae</i>	ATCC® 49247	0.25-1
CEFPODOXIME 0.016 - 256 µg/mL	PX	<i>Enterobacteriales</i>	2	4	8	<i>Enterobacteriales</i>	1	1	<i>S. aureus</i>	ATCC® 29213	1-8
		<i>Haemophilus</i> spp.	2	-	-	<i>S. pneumoniae</i>	0.25	0.5	<i>E. coli</i>	ATCC® 25922	0.25-1
		<i>N. gonorrhoeae</i>	0.5	-	-	<i>H. influenzae</i>	0.25	0.25	<i>E. coli</i>	ATCC® 35218	0.12-0.5
		<i>S. pneumoniae</i>	0.5	1	2				<i>K. pneumoniae</i>	ATCC® 700603	4-32
									<i>E. coli</i>	NCTC 13353	32-128
							<i>H. influenzae</i>	ATCC® 49247	0.25-1		
							<i>S. pneumoniae</i>	ATCC® 49619	0.03-0.12		
							<i>N. gonorrhoeae</i>	ATCC® 49226	0.03-0.12		
							<i>H. influenzae</i>	ATCC® 49766	0.03-0.125		
CEFTAROLINE 0.016 - 256 µg/mL 0.002 - 32 µg/mL	CPT	<i>Enterobacteriales</i>	0.5	1	2	<i>Enterobacteriales</i>	0.5	0.5	<i>S. aureus</i>	ATCC® 29213	0.12-0.5
		<i>S. aureus</i> only including MRSA	1	2-4	8	<i>S. aureus</i> (indications other than pneumonia)	1	2	<i>E. faecalis</i>	ATCC® 29212	0.25-2
		<i>Haemophilus</i> spp.	0.5	-	-	<i>S. aureus</i> (pneumonia)	1	1	<i>E. coli</i>	ATCC® 25922	0.03-0.12
		<i>S. pneumoniae</i> (nonmeningitis)	0.5	-	-	<i>S. pneumoniae</i>	0.25	0.25	<i>K. pneumoniae</i>	ATCC® 700603	2-8
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.5	-	-	<i>H. influenzae</i>	0.03	0.03	<i>H. influenzae</i>	ATCC® 49247	0.03-0.12
		FDA ⁴				PK/PD (Non-species related) breakpoints	0.5	0.5	<i>S. pneumoniae</i>	ATCC® 49619	0.008-0.03
		<i>S. aureus</i> (including MRSA)	1	2	4				<i>B. fragilis</i>	ATCC® 25285	2-16
									<i>B. thetaiotaomicron</i>	ATCC® 29741	8-64
							<i>C. difficile</i>	ATCC® 700057	0.5-4		
							<i>H. influenzae</i>	ATCC® 49766	0.004-0.016		

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤	R>	QUALITY CONTROL			
										MIC µg/mL	MIC µg/mL		MIC µg/mL
CEFTAZIDIME 0.016 - 256 µg/mL	CAZ	<i>Enterobacterales</i> <i>P. aeruginosa</i> <i>Acinetobacter</i> spp. <i>B. cepacia</i> <i>S. maltophilia</i> Other Non-Enterobacterales <i>Haemophilus</i> spp. FDA ⁴ <i>P. aeruginosa</i>	4 8 8 8 8 8 2	8	8 16 16 16 16 16 -	16 32 32 32 32 32 -	<i>Enterobacterales</i> <i>Pseudomonas</i> spp. <i>Aeromonas</i> spp. <i>B. pseudomallei</i> PK/PD (Non-species related) breakpoints	1 0.001 1 0.001 4	4 8 4 8 8	<i>S. aureus</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>K. pneumoniae</i> <i>H. influenzae</i> <i>N. gonorrhoeae</i>	ATCC® 29213 ATCC® 25922 ATCC® 27853 ATCC® 700603 ATCC® 49247 ATCC® 49226	4-16 0.06-0.5 1-4 16-64 0.12-1 0.03-0.12	
CEFTAZIDIME-AVIBACTAM 0.016/4 - 256/4 µg/mL	CZA	<i>Enterobacterales</i> <i>P. aeruginosa</i>	8 8	-	-	16 16	<i>Enterobacterales</i> <i>Pseudomonas</i> spp. PK/PD (Non-species related) breakpoints	8 8 8	8 8 8	<i>S. aureus</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>E. coli</i> <i>K. pneumoniae</i> <i>H. influenzae</i> <i>H. influenzae</i> <i>S. pneumoniae</i>	ATCC® 29213 ATCC® 25922 ATCC® 27853 ATCC® 35218 ATCC® 700603 ATCC® 49247 ATCC® 49766 ATCC® 49619	4-16 0.06-0.5 0.5-4 0.03-0.12 0.25-2 0.06-0.5 0.016-0.06 0.25-2	
CEFTIBUTEN 0.002 - 32 µg/mL	CTB	<i>Enterobacterales</i> <i>H. influenzae</i>	8 2	-	-	16 -	<i>Enterobacterales</i> (UTI only) <i>H. influenzae</i>	1 1	1 1	<i>E. coli</i> <i>H. influenzae</i> <i>H. influenzae</i>	ATCC® 25922 ATCC® 49247 ATCC® 49766	0.12-0.5 0.25-1 0.016-0.06	
CEFTIZOXIME 0.002 - 32 µg/mL 0.016 - 256 µg/mL	CZX	<i>Enterobacterales</i> Other Non-Enterobacterales <i>Haemophilus</i> spp. <i>N. gonorrhoeae</i> Anaerobes	1 8 2 0.5 32	-	-	2 16-32 - - 64	4 64 - - 128	Not available		<i>S. aureus</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>H. influenzae</i> <i>S. pneumoniae</i> <i>N. gonorrhoeae</i> <i>E. lenta</i>	ATCC® 29213 ATCC® 25922 ATCC® 27853 ATCC® 49247 ATCC® 49619 ATCC® 49226 ATCC® 43055	2-8 0.03-0.12 16-64 0.06-0.5 0.12-0.5 0.008-0.03 8-32	
CEFTOBIPROLE 0.002 - 32 µg/mL	BPR	Not available					<i>Enterobacterales</i> <i>S. aureus</i> <i>S. pneumoniae</i> PK/PD (Non-species related) breakpoints	0.25 2 0.5 4	0.25 2 0.5 4	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>H. influenzae</i> <i>H. influenzae</i> <i>S. pneumoniae</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853 ATCC® 49247 ATCC® 49766 ATCC® 49619	0.12-1 0.06-0.5 0.03-0.12 1-4 0.12-1 0.016-0.06 0.004-0.03	
CEFTOLOZANE-TAZOBACTAM 0.016/4 - 256/4 µg/mL	C/T	<i>Enterobacterales</i> <i>P. aeruginosa</i> <i>Haemophilus</i> spp. <i>Streptococcus</i> spp. Viridans Group FDA ⁴ <i>B. fragilis</i> <i>H. influenzae</i>	2 4 0.5 8 8 8 0.5	-	-	4 8 - 16 16 16 16 -	8 16 - 32 32 32 -	<i>Enterobacterales</i> <i>P. aeruginosa</i> <i>H. influenzae</i>	2 4 0.5	2 4 0.5	<i>S. aureus</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>E. coli</i> <i>K. pneumoniae</i>	ATCC® 29213 ATCC® 25922 ATCC® 27853 ATCC® 35218 ATCC® 700603	16-64 0.12-0.5 0.25-1 0.06-0.25 0.5-2

Antibiotic	CODE	CLSI				EUCAST				QUALITY CONTROL		
		INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I R≥	INTERPRETATIVE CRITERIA ²	S≤	R>	MIC µg/mL	MIC µg/mL	MIC µg/mL	
CEFTRIAXONE 0.016 - 256 µg/mL 0.002 - 32 µg/mL	CRO	<i>Enterobacterales</i>	1	2	4	<i>Enterobacterales</i> (other than meningitis) <i>Enterobacterales</i> (meningitis) <i>S. pneumoniae</i> (other than meningitis) <i>S. pneumoniae</i> (meningitis) Viridans group streptococci <i>H. influenzae</i> <i>M. catarrhalis</i> <i>N. gonorrhoeae</i> <i>N. meningitidis</i> <i>K. kingae</i> PK/PD (Non-species related) breakpoints	1	2	<i>S. aureus</i>	ATCC® 29213	1-8	
		<i>Acinetobacter spp.</i>	8	16-32	64		1	1	<i>E. coli</i>	ATCC® 25922	0.03-0.12	
		Other Non- <i>Enterobacterales</i>	8	16-32	64		0.5	2	<i>P. aeruginosa</i>	ATCC® 27853	8-64	
		<i>Haemophilus spp.</i>	2	-	-		0.5	0.5	<i>H. influenzae</i>	ATCC® 49247	0.06-0.25	
		<i>N. gonorrhoeae</i>	0.25	-	-		0.5	0.5	<i>S. pneumoniae</i>	ATCC® 49619	0.03-0.12	
		<i>S. pneumoniae</i> (meningitis)	0.5	1	2		0.5	0.5	<i>N. gonorrhoeae</i>	ATCC® 49226	0.004-0.016	
		<i>S. pneumoniae</i> (nonmeningitis)	1	2	4		0.12	0.12	<i>H. influenzae</i>	ATCC® 49766	0.002-0.008	
		<i>Streptococcus spp.</i> β-Hemolytic Group	0.5	-	-		1	2				
		<i>Streptococcus spp.</i> Viridans Group	1	2	4		0.12	0.12				
		<i>N. meningitidis</i>	0.12	-	-		0.12	0.12				
		Anaerobes	16	32	64		0.06	0.06				
		EDA ⁴ Anaerobes	1	2	4		1	2				
		CEFUROXIME 0.016 - 256 µg/mL	CXM	<i>Enterobacterales</i> (parenteral)	8		16	32	<i>Enterobacterales</i> <i>S. pneumoniae</i> (iv) <i>S. pneumoniae</i> (oral) Viridans group streptococci (iv) <i>H. influenzae</i> (iv) <i>H. influenzae</i> (oral) <i>M. catarrhalis</i> (iv) <i>M. catarrhalis</i> (oral) <i>K. kingae</i> (iv) PK/PD (Non-species related) breakpoints (iv)	8	8	<i>S. aureus</i>
<i>Enterobacterales</i> (oral)	4			8-16	32	0.5	1	<i>E. coli</i>		ATCC® 25922	2-8	
<i>Haemophilus spp.</i>	4			8	16	0.25	0.5	<i>H. influenzae</i>		ATCC® 49766	0.25-1	
<i>S. pneumoniae</i> (parenteral)	0.5			1	2	0.5	0.5	<i>S. pneumoniae</i>		ATCC® 49619	0.25-1	
<i>S. pneumoniae</i> (oral)	1			2	4	1	2	<i>N. gonorrhoeae</i>		ATCC® 49226	0.25-1	
EDA ⁴						0.001	1					
Enterobacteriaceae (injection)	8			-	16	4	8					
						0.001	4					
						0.5	0.5					
						4	8					
CEPHALOTHIN 0.016 - 256 µg/mL	KF	Not available				Not available				<i>S. aureus</i>	ATCC® 29213	0.12-0.5
										<i>E. coli</i>	ATCC® 25922	4-16
										<i>S. pneumoniae</i>	ATCC® 49619	0.5-2
CHLORAMPHENICOL 0.016 - 256 µg/mL	C	<i>Enterobacterales</i>	8	16	32	<i>Enterobacterales</i> <i>Staphylococcus spp.</i> Streptococcus groups A, B, C and G <i>S. pneumoniae</i> <i>H. influenzae</i> <i>M. catarrhalis</i> <i>N. meningitidis</i> Gram-positive anaerobes except <i>C. difficile</i> Gram-negative anaerobes <i>B. pseudomallei</i>	8	8	<i>S. aureus</i>	ATCC® 29213	2-16	
		<i>B. cepacia</i>	8	16	32		8	8	<i>E. faecalis</i>	ATCC® 29212	4-16	
		<i>S. maltophilia</i>	8	16	32		8	8	<i>E. coli</i>	ATCC® 25922	2-8	
		Other non <i>Enterobacterales</i>	8	16	32		8	8	<i>H. influenzae</i>	ATCC® 49247	0.25-1	
		All staphylococci	8	16	32		2	2	<i>S. pneumoniae</i>	ATCC® 49619	2-8	
		<i>Enterococcus spp.</i>	8	16	32		2	2	<i>B. fragilis</i>	ATCC® 25285	4-16	
		<i>Haemophilus spp.</i>	2	4	8		2	2	<i>B. thetaiotaomicron</i>	ATCC® 29741	8-32	
		<i>S. pneumoniae</i>	4	-	8		8	8	<i>E. lenta</i>	ATCC® 43055	4-16	
		<i>Streptococcus spp.</i> β-Hemolytic Group	4	8	16		8	8	<i>H. influenzae</i>	ATCC® 49766	0.25-1	
		<i>Streptococcus spp.</i> Viridans Group	4	8	16		0.001	8				
		<i>N. meningitidis</i>	2	4	8							
		Anaerobes	8	16	32							

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹				EUCAST INTERPRETATIVE CRITERIA ²				QUALITY CONTROL	
		S≤	SDD MIC µg/mL	I	R≥	S≤	SDD MIC µg/mL	R>	MIC µg/mL	MIC µg/mL	
CIPROFLOXACIN 0.002 - 32 µg/mL	CIP	<i>Enterobacterales</i> except	0.25	0.5	1	<i>Enterobacterales</i>	0.25	0.5	<i>S. aureus</i>	ATCC® 29213	0.12-0.5
		<i>Salmonella</i> spp.				<i>Salmonella</i> spp.	0.06	0.06	<i>E. faecalis</i>	ATCC® 29212	0.25-2
		<i>Salmonella</i> spp.	0.06	0.12-0.5	1	<i>Pseudomonas</i> spp.	0.001	0.5	<i>E. coli</i>	ATCC® 25922	0.004-0.016
		<i>P. aeruginosa</i>	0.5	1	2	<i>Acinetobacter</i> spp.	0.001	1	<i>P. aeruginosa</i>	ATCC® 27853	0.12-1
		<i>Acinetobacter</i> spp.	1	2	4	<i>S. aureus</i>	0.001	1	<i>H. influenzae</i>	ATCC® 49247	0.004-0.03
		Other non <i>Enterobacterales</i>	1	2	4	Coagulase negative staphylococci	0.001	1	<i>N. gonorrhoeae</i>	ATCC® 49226	0.001-0.008
		All staphylococci	1	2	4	<i>Enterococcus</i> spp.	4	4	<i>H. influenzae</i>	ATCC® 49766	0.004-0.016
		<i>Enterococcus</i> spp.	1	2	4	<i>S. pneumoniae</i>	0.12	2			
		<i>Haemophilus</i> spp.	1	-	-	<i>H. influenzae</i>	0.06	0.06			
		<i>N. gonorrhoeae</i>	0.06	0.12-0.5	1	<i>M. catarrhalis</i>	0.12	0.12			
		<i>N. meningitidis</i>	0.03	0.06	0.12	<i>N. gonorrhoeae</i>	0.03	0.06			
		FDA ⁴				<i>N. meningitidis</i>	0.03	0.03			
		<i>S. pneumoniae</i>	1	2	4	<i>P. multocida</i>	0.06	0.06			
		<i>Streptococcus</i> spp. β-Hemolytic Group	1	2	4	<i>C. jejuni</i> and <i>coli</i>	0.001	0.5			
						<i>Corynebacterium</i> spp.	0.001	1			
						<i>Aerococcus sanguinicola</i> and <i>urinae</i>	2	2			
						<i>K. kingae</i>	0.06	0.06			
				<i>Aeromonas</i> spp.	0.25	0.5					
				<i>Bacillus</i> spp. except <i>B. anthracis</i>	0.001	0.5					
				PK/PD (Non-species related) breakpoints	0.25	0.5					
CLARITHROMYCIN 0.016 - 256 µg/mL	CLR	All staphylococci	2	4	8	<i>Staphylococcus</i> spp.	1	2	<i>S. aureus</i>	ATCC® 29213	0.12-0.5
		<i>H. influenzae</i>	8	16	32	<i>Streptococcus</i> groups A, B, C and G	0.25	0.5	<i>H. influenzae</i> (-CO ₂)	ATCC® 49247	4-16
		<i>S. pneumoniae</i>	0.25	0.5	1	<i>S. pneumoniae</i>	0.25	0.5	<i>H. influenzae</i> (+CO ₂)	ATCC® 49247	8-32
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.25	0.5	1	<i>M. catarrhalis</i>	0.25	0.5	<i>S. pneumoniae</i> (-CO ₂)	ATCC® 49619	0.032-0.125
		<i>Streptococcus</i> spp. Viridans Group	0.25	0.5	1	<i>H. pylori</i>	0.25	0.5	<i>S. pneumoniae</i> (+CO ₂)	ATCC® 49619	0.064-0.25
						<i>K. kingae</i>	0.5	0.5			
CLINDAMYCIN 0.016 - 256 µg/mL	CD	All staphylococci	0.5	1-2	4	<i>Staphylococcus</i> spp.	0.25	0.5	<i>S. aureus</i>	ATCC® 29213	0.06-0.25
		<i>S. pneumoniae</i>	0.25	0.5	1	<i>Streptococcus</i> groups A, B, C and G	0.5	0.5	<i>E. faecalis</i>	ATCC® 29212	4-16
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.25	0.5	1	<i>S. pneumoniae</i>	0.5	0.5	<i>S. pneumoniae</i> (-CO ₂)	ATCC® 49619	0.032-0.125
		<i>Streptococcus</i> spp. Viridans Group	0.25	0.5	1	Viridans group streptococci	0.5	0.5	<i>S. pneumoniae</i> (+CO ₂)	ATCC® 49619	0.064-0.25
		Anaerobes	2	4	8	Gram-positive anaerobes except <i>C. difficile</i>	4	4	<i>B. fragilis</i>	ATCC® 25285	0.5-2
						Gram-negative anaerobes	4	4	<i>B. thetaiotaomicron</i>	ATCC® 29741	2-8
				<i>Corynebacterium</i> spp.	0.5	0.5	<i>E. lenta</i>	ATCC® 43055	0.06-0.25		
COLISTIN 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	CS	<i>Enterobacterales</i>	-	2	4	<i>Enterobacterales</i>	2	2	<i>E. coli</i>	ATCC® 25922	0.25-2
		<i>P. aeruginosa</i>	-	2	4	<i>Pseudomonas</i> spp.	2	2	<i>P. aeruginosa</i>	ATCC® 27853	0.5-4
		<i>Acinetobacter</i> spp.	-	2	4	<i>Acinetobacter</i> spp.	2	2	<i>E. coli</i>	NCTC 13846	2-8
DALBAVANCIN 0.002 - 32 µg/mL	DAL	<i>S. aureus</i> only including MRSA	0.25	-	-	<i>Staphylococcus</i> spp.	0.12	0.12	<i>S. aureus</i>	ATCC® 29213	0.03-0.12
		<i>Enterococcus</i> spp.	0.25	-	-				<i>E. faecalis</i>	ATCC® 29212	0.03-0.12
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.25	-	-				<i>S. pneumoniae</i>	ATCC® 49619	0.008-0.03
		<i>Streptococcus</i> spp. Viridans Group	0.25	-	-						
DAPTOMYCIN 0.016 - 256 µg/mL	DAP	All staphylococci	1	-	-	<i>Staphylococcus</i> spp.	1	1	<i>S. aureus</i>	ATCC® 29213	0.12-1
		<i>E. faecium</i> only	-	4	8	<i>Streptococcus</i> groups A, B, C and G	1	1	<i>E. faecalis</i>	ATCC® 29212	1-4
		<i>Enterococcus</i> spp. other than <i>E. faecium</i> .	2	4	8				<i>S. pneumoniae</i>	ATCC® 49619	0.06-0.5
		<i>Streptococcus</i> spp. β-Hemolytic Group	1	-	-						
		<i>Streptococcus</i> spp. Viridans Group	1	-	-						
		FDA ⁴									
		<i>E. faecalis</i> (including vancomycin-resistant isolates)	2	4	8						

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹				EUCAST INTERPRETATIVE CRITERIA ²				QUALITY CONTROL		MIC µg/mL					
		S≤	SDD MIC µg/mL	I	R≥	S≤	SDD MIC µg/mL	I	R≥	ATCC®	ATCC®						
DELAFOXACIN 0.002 - 32 µg/mL	DLX	FDA ⁴				E. coli	0.125	0.125	S. aureus	ATCC® 29213	0.001-0.008						
		For ABSSSI:										S. aureus	0.25	0.25	E. faecalis	ATCC® 29212	0.016-0.12
		S. aureus (methicillin-resistant and methicillin-susceptible isolates)	0.25	0.5	1							Streptococcus groups A, B, C and G	0.03	0.03	E. coli	ATCC® 25922	0.008-0.03
		S. haemolyticus	0.25	0.5	1							S. anginosus group	0.03	0.03	P. aeruginosa	ATCC® 27853	0.12-0.5
		S. lugdunensis	0.03	-	-										H. influenzae	ATCC® 49247	0.00025-0.001
		S. pyogenes	0.06	-	-										S. pneumoniae	ATCC® 49619	0.004-0.016
		S. agalactiae	0.06	0.12	0.25												
		S. anginus Group	0.06	-	-												
		E. faecalis	0.12	0.25	0.5												
		E. coli, K. pneumoniae, and E. cloacae only	0.25	0.5	1												
		P. aeruginosa	0.5	1	2												
		For CABP:															
		S. pneumoniae	0.03	-	-												
		S. aureus (methicillin-susceptible isolates)	0.12	0.25	0.5												
		H. influenzae	0.004	-	-												
H. parainfluenzae	0.06	-	-														
E. coli	0.25	0.5	1														
K. pneumoniae	0.25	0.5	1														
P. aeruginosa	0.5	1	2														
DORIPENEM 0.002 - 32 µg/mL	DOR	Enterobacterales	1	2	4	Enterobacterales	1	2	S. aureus	ATCC® 29213	0.016-0.06						
		P. aeruginosa	2	4	8	Pseudomonas spp.	0.001	2	E. faecalis	ATCC® 29212	1-4						
		Acinetobacter spp.	2	4	8	Acinetobacter spp.	0.001	2	E. coli	ATCC® 25922	0.016-0.06						
		Staphylococcus spp.	0.5	-	-	S. pneumoniae	1	1	P. aeruginosa	ATCC® 27853	0.12-0.5						
		Haemophilus spp.	1	-	-	Viridans group streptococci	1	1	H. influenzae	ATCC® 49766	0.06-0.25						
		S. pneumoniae	1	-	-	H. influenzae	1	1	S. pneumoniae	ATCC® 49619	0.03-0.12						
		Streptococcus spp. β-Hemolytic Group	0.12	-	-	M. catarrhalis	1	1	B. fragilis	ATCC® 25285	0.12-0.5						
		Streptococcus spp. Viridans Group	1	-	-	Gram-positive anaerobes except C. difficile	1	1	B. thetaiotaomicron	ATCC® 29741	0.12-1						
		Anaerobes	2	4	8	Gram-negative anaerobes	1	1									
		FDA ⁴				PK/PD (Non-species related) breakpoints	2	2									
		Anaerobes	1	-	-												
DOXYCYCLINE 0.016 - 256 µg/mL	DXT	Enterobacterales	4	8	16	Staphylococcus spp.	1	2	S. aureus	ATCC® 29213	0.12-0.5						
		Acinetobacter spp.	4	8	16	Streptococcus groups A, B, C and G	1	2	E. faecalis	ATCC® 29212	2-8						
		Other Non-Enterobacterales	4	8	16	S. pneumoniae	1	2	E. coli	ATCC® 25922	0.5-2						
		All staphylococci	4	8	16	H. influenzae	1	2	S. pneumoniae	ATCC® 49619	0.016-0.12						
		Enterococcus spp.	4	8	16	M. catarrhalis	1	2	B. thetaiotaomicron	ATCC® 29741	2-8						
		S. pneumoniae	0.25	0.5	1	P. multocida	1	1	E. lenta	ATCC® 43055	2-16						
						K. kingae	0.5	0.5	H. influenzae	ATCC® 49766	0.25-1						
						B. pseudomallei	0.001	2									
ERAVACYCLINE 0.002 - 32 µg/mL	ERV	FDA ⁴				E. coli	0.5	0.5	S. aureus	ATCC® 29213	0.016-0.12						
		Enterobacteriaceae	0.5	-	-	S. aureus	0.25	0.25	E. faecalis	ATCC® 29212	0.016-0.06						
		S. aureus	0.06	-	-	E. faecalis	0.125	0.125	E. coli	ATCC® 25922	0.016-0.12						
		E. faecalis, E. faecium	0.06	-	-	E. faecium	0.125	0.125	P. aeruginosa	ATCC® 27853	2-16						
		S. anginosus Group	0.06	-	-	Viridans group streptococci	0.125	0.125	H. influenzae	ATCC® 49247	0.06-0.5						
		Anaerobes	0.5	-	-				S. pneumoniae	ATCC® 49619	0.004-0.03						
							B. fragilis	ATCC® 25285	0.016-0.12								
							B. thetaiotaomicron	ATCC® 29741	0.06-0.25								
							C. difficile	ATCC® 700057	0.016-0.06								

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤	R>	QUALITY CONTROL		
										MIC µg/mL	MIC µg/mL	MIC µg/mL
ERTAPENEM 0.002 - 32 µg/mL	ETP	<i>Enterobacterales</i>	0.5		1	2	<i>Enterobacterales</i>	0.5	0.5	<i>S. aureus</i>	ATCC® 29213	0.06-0.25
		<i>Staphylococcus</i> spp.	2		4	8	<i>S. pneumoniae</i>	0.5	0.5	<i>E. faecalis</i>	ATCC® 29212	4-16
		<i>Haemophilus</i> spp.	0.5		-	-	Viridans group streptococci	0.5	0.5	<i>E. coli</i>	ATCC® 25922	0.004-0.016
		<i>S. pneumoniae</i>	1		2	4	<i>H. influenzae</i>	0.5	0.5	<i>P. aeruginosa</i>	ATCC® 27853	2-8
		<i>Streptococcus</i> spp. β-Hemolytic Group	1		-	-	<i>M. catarrhalis</i>	0.5	0.5	<i>H. influenzae</i>	ATCC® 49766	0.016-0.06
		<i>Streptococcus</i> spp. Viridans Group	1		-	-	Gram-positive anaerobes except <i>C. difficile</i>	0.5	0.5	<i>S. pneumoniae</i>	ATCC® 49619	0.03-0.25
		Anaerobes	4		8	16	Gram-negative anaerobes	0.5	0.5	<i>B. fragilis</i>	ATCC® 25285	0.06-0.5
							PK/PD (Non-species related) breakpoints	0.5	0.5	<i>B. thetaiotaomicron</i>	ATCC® 29741	0.5-2
										<i>E. lenta</i>	ATCC® 43055	0.5-4
ERYTHROMYCIN 0.016 - 256 µg/mL	E	All staphylococci	0.5		1-4	8	<i>Staphylococcus</i> spp.	1	2	<i>S. aureus</i>	ATCC® 29213	0.25-1
		<i>Enterococcus</i> spp.	0.5		1-4	8	Streptococcus groups A, B, C and G	0.25	0.5	<i>E. faecalis</i>	ATCC® 29212	1-4
		<i>S. pneumoniae</i>	0.25		0.5	1	<i>S. pneumoniae</i>	0.25	0.5	<i>S. pneumoniae</i> (-CO ₂)	ATCC® 49619	0.032-0.125
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.25		0.5	1	<i>M. catarrhalis</i>	0.25	0.5	<i>S. pneumoniae</i> (+CO ₂)	ATCC® 49619	0.064-0.25
		<i>Streptococcus</i> spp. Viridans Group	0.25		0.5	1	<i>L. monocytogenes</i>	1	1			
							<i>C. jejuni</i>	4	4			
							<i>C. coli</i>	8	8			
					<i>K. kingae</i>	0.5	0.5					
FOSFOMYCIN 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	FOS	<i>Enterobacterales</i>	64		128	256	<i>Enterobacterales</i> (iv)	32	32	<i>S. aureus</i>	ATCC® 29213	0.5-4
		<i>Enterococcus</i> spp.	64		128	256	<i>E. coli</i> (oral)	8	8	<i>E. faecalis</i>	ATCC® 29212	32-128
							<i>Staphylococcus</i> spp (iv)	32	32	<i>E. coli</i>	ATCC® 25922	0.5-2
								<i>P. aeruginosa</i>	ATCC® 27853	2-8		
FUSIDIC ACID 0.016 - 256 µg/mL	FU	Not available					<i>Staphylococcus</i> spp.	1	1	<i>S. aureus</i>	ATCC® 29213	0.06-0.25
										<i>S. pneumoniae</i>	ATCC® 49619	4-32
GATIFLOXACIN 0.002 - 32 µg/mL	GAT	<i>Enterobacterales</i> except <i>Salmonella</i> spp.	2		4	8	Not available			<i>S. aureus</i>	ATCC® 29213	0.03-0.12
		<i>P. aeruginosa</i>	2		4	8			<i>E. faecalis</i>	ATCC® 29212	0.12-1	
		<i>Acinetobacter</i> spp.	2		4	8			<i>E. coli</i>	ATCC® 25922	0.008-0.03	
		Other Non-Enterobacterales	2		4	8			<i>P. aeruginosa</i>	ATCC® 27853	0.5-2	
		All staphylococci	0.5		1	2			<i>H. influenzae</i>	ATCC® 49766	0.004-0.03	
		<i>Enterococcus</i> spp.	2		4	8			<i>S. pneumoniae</i>	ATCC® 49619	0.12-0.5	
		<i>Haemophilus</i> spp.	1		-	-			<i>N. gonorrhoeae</i>	ATCC® 49226	0.002-0.016	
		<i>N. gonorrhoeae</i>	0.125		0.25	0.5						
		<i>S. pneumoniae</i>	1		2	4						
		<i>Streptococcus</i> spp. β-Hemolytic Group	1		2	4						
		<i>Streptococcus</i> spp. Viridans Group	1		2	4						
GEMIFLOXACIN 0.002 - 32 µg/mL	GEM	<i>Enterobacterales</i>	0.25		0.5	1	Not available			<i>S. aureus</i>	ATCC® 29213	0.008-0.03
		<i>Haemophilus</i> spp.	0.12		-	-			<i>E. faecalis</i>	ATCC® 29212	0.016-0.12	
		<i>S. pneumoniae</i>	0.12		0.25	0.5			<i>E. coli</i>	ATCC® 25922	0.004-0.016	
									<i>P. aeruginosa</i>	ATCC® 27853	0.25-1	
								<i>H. influenzae</i>	ATCC® 49766	0.002-0.008		
								<i>S. pneumoniae</i>	ATCC® 49619	0.008-0.03		
GENTAMICIN 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	CN	<i>Enterobacterales</i>	4		8	16	<i>Enterobacterales</i>	2	2	<i>S. aureus</i>	ATCC® 29213	0.12-1
		<i>P. aeruginosa</i>	4		8	16	<i>Pseudomonas</i> spp.	4	4	<i>E. faecalis</i>	ATCC® 29212	4-16
		<i>Acinetobacter</i> spp.	4		8	16	<i>Acinetobacter</i> spp.	4	4	<i>E. coli</i>	ATCC® 25922	0.25-1
		Other Non-Enterobacterales	4		8	16	<i>S. aureus</i>	1	1	<i>P. aeruginosa</i>	ATCC® 27853	0.5-2
		All staphylococci	4		8	16	Coagulase-negative staphylococci	1	1	HLAR		
		<i>Enterococcus</i> spp. (test for detection of HLAR)	500		-	500	PK/PD (Non-species related) breakpoints	0.5	0.5	<i>E. faecalis</i>	ATCC® 29212	≤ 500
							<i>Enterococcus</i> spp. (test for high-level gentamicin resistance)	128	128	<i>E. faecalis</i>	ATCC® 51299	> 500

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹				EUCAST INTERPRETATIVE CRITERIA ²			QUALITY CONTROL		MIC µg/mL
		S≤	SDD MIC µg/mL	I	R≥	S≤	R>	MIC µg/mL			
IMIPENEM 0.002 - 32 µg/mL 0.016 - 256 µg/mL	IMI	<i>Enterobacterales</i>	1	2	4	<i>Enterobacterales</i> (except <i>Morganellaceae</i>)	2	4	<i>S. aureus</i>	ATCC® 29213	0.016-0.06
		<i>P. aeruginosa</i>	2	4	8	<i>Morganellaceae</i>	0.001	4	<i>E. faecalis</i>	ATCC® 29212	0.5-2
		<i>Acinetobacter</i> spp.	2	4	8	<i>Pseudomonas</i> spp.	0.001	4	<i>E. coli</i>	ATCC® 25922	0.06-0.25
		Other Non-Enterobacterales	4	8	16	<i>Acinetobacter</i> spp.	2	4	<i>P. aeruginosa</i>	ATCC® 27853	1-4
		<i>Staphylococcus</i> spp.	4	8	16	<i>Enterococcus</i> spp.	0.001	4	<i>K. pneumoniae</i>	ATCC® 700603	0.03-0.25
		<i>Haemophilus</i> spp.	4	-	-	<i>S. pneumoniae</i>	2	2	<i>K. pneumoniae</i>	ATCC® BAA-1705	4-16
		<i>S. pneumoniae</i>	0.12	0.25-0.5	1	<i>Viridans group streptococci</i>	2	2	<i>K. pneumoniae</i>	ATCC® BAA-2814	16-64
		Anaerobes	4	8	16	<i>H. influenzae</i>	2	2	<i>H. influenzae</i>	ATCC® 49766	0.25-1
						<i>M. catarrhalis</i>	2	2	<i>S. pneumoniae</i>	ATCC® 49619	0.03-0.12
						Gram-positive anaerobes except <i>C. difficile</i>	2	8	<i>B. fragilis</i>	ATCC® 25285	0.03-0.25
						Gram-negative anaerobes	2	4	<i>B. thetaiotaomicron</i>	ATCC® 29741	0.25-1
						<i>B. pseudomallei</i>	2	2	<i>E. lenta</i>	ATCC® 43055	0.25-2
						<i>Bacillus</i> spp. except <i>B. anthracis</i>	0.5	0.5			
						PK/PD (Non-species related) breakpoints	2	4			
IMIPENEM-RELBACTAM 0.002/4 - 32/4 µg/mL	I/R	<i>Enterobacterales</i> except <i>Morganellaceae</i>	1	2	4	<i>Enterobacterales</i> (except <i>Morganellaceae</i>)	2	2	<i>E. coli</i>	ATCC® 25922	0.06-0.25
		<i>P. aeruginosa</i>	2	4	8	<i>Acinetobacter</i> spp.	2	2	<i>P. aeruginosa</i>	ATCC® 27853	0.25-1
		Anaerobes	4	8	16	<i>Viridans group streptococci</i>	2	2	<i>S. aureus</i>	ATCC® 29213	0.008-0.03
		FDA ⁴				Gram-positive anaerobes except <i>C. difficile</i>	2	2	<i>E. faecalis</i>	ATCC® 29213	0.5-2
		<i>Enterobacteriaceae</i>	1	2	4	Gram-negative anaerobes	2	2	<i>E. coli</i>	ATCC® 35218	0.06-0.25
		<i>P. aeruginosa</i>	2	4	8	PK/PD (Non-species related) breakpoints	2	2	<i>K. pneumoniae</i>	ATCC® 700603	0.03-0.25
		<i>A. calcoaceticus-baumannii</i> complex	2	4	8	<i>S. pneumoniae</i>	2	2	<i>K. pneumoniae</i>	ATCC® BAA-1705	0.03-0.25
		<i>H. influenzae</i>	4	-	-	<i>H. influenzae</i>	2	2	<i>K. pneumoniae</i>	ATCC® BAA-2814	0.06-0.5
		Anaerobes	4	8	16	<i>S. pneumoniae</i>	2	2	<i>H. influenzae</i>	ATCC® 49766	0.25-1
KANAMYCIN 0.016 - 256 µg/mL	K	<i>Enterobacterales</i>	16	32	64	Not available			<i>S. aureus</i>	ATCC® 29213	1-4
		<i>Staphylococcus</i> spp.	16	32	64			<i>E. faecalis</i>	ATCC® 29212	16-64	
								<i>E. coli</i>	ATCC® 25922	1-4	
LEFAMULIN 0.016 - 256 µg/mL	LMU	<i>S. aureus</i>	0.25	-	-	<i>S. aureus</i>	0.25	0.25	<i>S. aureus</i>	ATCC® 29213	0.06-0.25
		<i>Haemophilus</i> spp.	2	-	-	PK/PD (Non-species related) breakpoints	0.25	0.25	<i>H. influenzae</i>	ATCC® 49247	0.5-2
		<i>S. pneumoniae</i>	0.5	-	-			<i>S. pneumoniae</i>	ATCC® 49619	0.06-0.5	
		FDA ⁴									
		<i>S. aureus</i> (methicillin-susceptible isolates)	0.25	-	-						
		<i>S. pneumoniae</i>	0.5	-	-						
		<i>H. influenzae</i>	2	-	-						

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹				EUCAST INTERPRETATIVE CRITERIA ²				QUALITY CONTROL	
		S≤	SDD MIC µg/mL	I	R≥	S≤	MIC µg/mL	R>		MIC µg/mL	
LEVOFLOXACIN 0.002 - 32 µg/mL	LEV	<i>Enterobacterales</i> except	0.5	1	2	<i>Enterobacterales</i>	0.5	1	<i>S. aureus</i>	ATCC® 29213	0.06-0.5
		<i>Salmonella</i> spp.				<i>Pseudomonas</i> spp.	0.001	1	<i>E. faecalis</i>	ATCC® 29212	0.25-2
		<i>Salmonella</i> spp.	0.12	0.25-1	2	<i>Acinetobacter</i> spp.	0.5	1	<i>E. coli</i>	ATCC® 25922	0.008-0.06
		<i>P. aeruginosa</i>	1	2	4	<i>S. aureus</i>	0.001	1	<i>P. aeruginosa</i>	ATCC® 27853	0.5-4
		<i>Acinetobacter</i> spp.	2	4	8	Coagulase-negative staphylococci	0.001	1	<i>H. influenzae</i>	ATCC® 49247	0.008-0.03
		<i>B. cepacia</i>	2	4	8	<i>Enterococcus</i> spp.	4	4	<i>S. pneumoniae</i>	ATCC® 49619	0.5-2
		<i>S. maltophilia</i>	2	4	8	<i>Streptococcus</i> groups A, B, C and G	0.001	2	<i>H. influenzae</i>	ATCC® 49766	0.008-0.03
		Other Non-Enterobacterales	2	4	8	<i>S. pneumoniae</i>	0.001	2			
		All staphylococci	1	2	4	<i>H. influenzae</i>	0.06	0.06			
		<i>Enterococcus</i> spp.	2	4	8	<i>M. catarrhalis</i>	0.12	0.12			
		<i>Haemophilus</i> spp.	2	-	-	<i>H. pylori</i>	1	1			
		<i>S. pneumoniae</i>	2	4	8	<i>P. multocida</i>	0.06	0.06			
		<i>Streptococcus</i> spp. β-Hemolytic Group	2	4	8	<i>Aerococcus sanguinicola</i> and <i>urinae</i>	2	2			
		<i>Streptococcus</i> spp. Viridans Group	2	4	8	<i>K. kingae</i>	0.125	0.125			
		<i>N. meningitidis</i>	0.03	0.06	0.12	<i>Aeromonas</i> spp.	0.5	1			
		EDA ⁴				<i>Bacillus</i> spp. except <i>B. anthracis</i>	0.001	1			
		<i>S. aureus</i> (methicillin-susceptible)	2	4	8	PK/PD (Non-species related) breakpoints	0.5	1			
LINEZOLID 0.016 - 256 µg/mL	LNZ	All staphylococci	4	-	8	<i>Staphylococcus</i> spp.	4	4	<i>S. aureus</i>	ATCC® 29213	1-4
		<i>Enterococcus</i> spp.	2	4	8	<i>Enterococcus</i> spp.	4	4	<i>E. faecalis</i>	ATCC® 29212	1-4
		<i>S. pneumoniae</i>	2	-	-	<i>Streptococcus</i> groups A, B, C and G	2	2	<i>S. pneumoniae</i>	ATCC® 49619	0.25-2
		<i>Streptococcus</i> spp. β-Hemolytic Group	2	-	-	<i>S. pneumoniae</i>	2	2	<i>S. aureus</i>	ATCC® 25923	1-4
		<i>Streptococcus</i> spp. Viridans Group	2	-	-	<i>Corynebacterium</i> spp.	2	2	<i>B. fragilis</i>	ATCC® 25285	2-8
						PK/PD (Non-species related) breakpoints	2	2	<i>B. thetaiotaomicron</i>	ATCC® 29741	2-8
									<i>E. lenta</i>	ATCC® 43055	0.5-2
MECILLINAM 0.016 - 256 µg/mL	MEC	<i>Enterobacterales</i>	8	16	32	<i>E. coli</i> , <i>Citrobacter</i> spp., <i>Klebsiella</i> spp., <i>Raoultella</i> spp., <i>Enterobacter</i> spp. and <i>P. mirabilis</i>	8	8	<i>E. coli</i>	ATCC® 25922	0.03-0.25

Antibiotic	CODE	CLSI				EUCAST			QUALITY CONTROL				
		INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I R≥	INTERPRETATIVE CRITERIA ²	S≤	R>	MIC µg/mL				
MEROPENEM 0.002 - 32 µg/mL 0.016 - 256 µg/mL	MRP	<i>Enterobacterales</i>	1		2	4	<i>Enterobacterales</i> (other than meningitis)	2	8	<i>S. aureus</i>	ATCC® 29213	0.03-0.12	
		<i>P. aeruginosa</i>	2		4	8				<i>E. faecalis</i>	ATCC® 29212	2-8	
		<i>Acinetobacter</i> spp.	2		4	8		<i>Enterobacterales</i> (meningitis)	2	2	<i>E. coli</i>	ATCC® 25922	0.008-0.06
		<i>B. cepacia</i>	4		8	16		<i>Pseudomonas</i> spp. (other than meningitis)	2	8	<i>P. aeruginosa</i>	ATCC® 27853	0.12-1
		Other Non-Enterobacterales	4		8	16		<i>Pseudomonas</i> spp. (meningitis)	2	2	<i>E. coli</i>	ATCC® 35218	0.008-0.06
		<i>Staphylococcus</i> spp.	4		8	16		<i>Acinetobacter</i> spp. (other than meningitis)	2	8	<i>K. pneumoniae</i>	ATCC® BAA-1705	8-64
		<i>Haemophilus</i> spp.	0.5		-	-		<i>Acinetobacter</i> spp. (meningitis)	2	2	<i>K. pneumoniae</i>	ATCC® BAA-2814	32-256
		<i>S. pneumoniae</i>	0.25	0.5	1			<i>S. pneumoniae</i> (indications other than meningitis)	2	2	<i>H. influenzae</i>	ATCC® 49766	0.03-0.12
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.5		-	-		<i>Acinetobacter</i> spp. (meningitis)	2	2	<i>S. pneumoniae</i>	ATCC® 49619	0.03-0.25
		<i>Streptococcus</i> spp. Viridans Group	0.5		-	-		<i>S. pneumoniae</i> (meningitis)	0.25	0.25	<i>B. fragilis</i>	ATCC® 25285	0.03-0.25
		<i>N. meningitidis</i>	0.25		-	-		Viridans group streptococci	2	2	<i>B. thetaiotaomicron</i>	ATCC® 29741	0.06-0.5
		Anaerobes	4		8	16		<i>H. influenzae</i> (indications other than meningitis)	2	2	<i>E. lenta</i>	ATCC® 43055	0.125-1
								<i>H. influenzae</i> (meningitis)	0.25	0.25			
								<i>M. catarrhalis</i>	2	2			
								<i>N. meningitidis</i>	0.25	0.25			
								Gram-positive anaerobes except <i>C. difficile</i>	2	8			
					Gram-negative anaerobes	2	8						
					<i>L. monocytogenes</i>	0.25	0.25						
					<i>K. kingae</i>	0.03	0.03						
					<i>B. pseudomallei</i>	2	2						
					<i>A. xylooxidans</i>	1	4						
					<i>Bacillus</i> spp. except <i>B. anthracis</i>	0.25	0.25						
					PK/PD (Non-species related) breakpoints	2	8						
MEROPENEM-VABORBACTAM 0.016/8 - 256/8 µg/mL	MVV	<i>Enterobacterales</i>	4	8	16	<i>Enterobacterales</i> PK/PD (Non-species related) breakpoints	8	8	<i>S. aureus</i>	ATCC® 29213	0.03-0.12		
							8	8	<i>E. coli</i>	ATCC® 25922	0.008-0.06		
METRONIDAZOLE 0.016 - 256 µg/mL	MTZ	Anaerobes	8	16	32	Gram-positive anaerobes except <i>C. difficile</i>	4	4	<i>P. aeruginosa</i>	ATCC® 27853	0.12-1		
							2	2	<i>E. coli</i>	ATCC® 35218	0.008-0.06		
							4	4	<i>K. pneumoniae</i>	ATCC® 700603	0.016-0.06		
							8	8	<i>K. pneumoniae</i>	ATCC® BAA-1705	0.008-0.06		
						<i>C. difficile</i>	2	2	<i>K. pneumoniae</i>	ATCC® BAA-2814	0.12-0.5		
						Gram-negative anaerobes	4	4	<i>B. fragilis</i>	ATCC® 25285	0.25-2		
						<i>H. pylori</i>	8	8	<i>B. thetaiotaomicron</i>	ATCC® 29741	0.5-4		
									<i>E. lenta</i>	ATCC® 43055	0.125-0.5		
MINOCYCLINE 0.016 - 256 µg/mL	MN	<i>Enterobacterales</i>	4		8	16	<i>Staphylococcus</i> spp.	0.5	0.5	<i>S. aureus</i>	ATCC® 29213	0.06-0.5	
		<i>Acinetobacter</i> spp.	4		8	16	<i>Streptococcus</i> groups A, B, C and G	0.5	0.5	<i>E. faecalis</i>	ATCC® 29212	1-4	
		<i>B. cepacia</i>	4		8	16	<i>S. pneumoniae</i>	0.5	0.5	<i>E. coli</i>	ATCC® 25922	0.25-1	
		<i>S. maltophilia</i>	4		8	16	<i>H. influenzae</i>	1	1	<i>H. influenzae</i>	ATCC® 49766	0.125-0.5	
		Other Non-Enterobacterales	4		8	16	<i>M. catarrhalis</i>	1	1				
		All staphylococci	4		8	16	<i>N. gonorrhoeae</i>	0.5	1				
		<i>Enterococcus</i> spp.	4		8	16	<i>N. meningitidis</i>	1	1				
		<i>N. meningitidis</i>	2		-	-							

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST			QUALITY CONTROL		
							INTERPRETATIVE CRITERIA ²			S≤	R>	MIC µg/mL
MOXIFLOXACIN 0.002 - 32 µg/mL	MXF	All staphylococci <i>Haemophilus</i> spp. <i>S. pneumoniae</i> Anaerobes FDA ⁴ Enterobacteriaceae <i>E. faecalis</i>	0.5 1 1 2 2 1		1 - 2 4 4 2	2 - 4 8 8 4	<i>Enterobacteriales</i> <i>Staphylococcus</i> spp. <i>Streptococcus</i> groups A, B, C and G <i>S. pneumoniae</i> <i>H. influenzae</i> <i>M. catarrhalis</i> <i>Corynebacterium</i> spp. PK/PD (Non-species related) breakpoints	0.25 0.25 0.5 0.5 0.125 0.25 0.5 0.25	0.25 0.25 0.5 0.5 0.125 0.25 0.5 0.25	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>H. influenzae</i> <i>S. pneumoniae</i> <i>N. gonorrhoeae</i> <i>B. fragilis</i> <i>B. thetaiotaomicron</i> <i>E. lenta</i> <i>H. influenzae</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853 ATCC® 49247 ATCC® 49619 ATCC® 49226 ATCC® 25285 ATCC® 29741 ATCC® 43055 ATCC® 49766	0.016-0.12 0.06-0.5 0.008-0.06 1-8 0.008-0.03 0.06-0.25 0.008-0.03 0.12-0.5 1-8 0.12-0.5 0.008-0.03
MUPIROCIN 0.064 - 1024 µg/mL	MUP	<i>S. aureus</i> (test for detection of HLMR)	256		-	256	<i>Staphylococcus</i> spp.	1	256	<i>S. aureus</i> (mupA negative) <i>E. faecalis</i> (mupA negative) <i>S. aureus</i> (mupA positive)	ATCC® 29213 ATCC® 29212 ATCC® BAA 1708	0.06-0.25 16-128 > 256
NALIDIXIC ACID 0.016 - 256 µg/mL	NA	<i>Enterobacteriales</i> except <i>Salmonella</i> spp.	16		-	32	Not available			<i>E. coli</i>	ATCC® 25922	1-4
NETILMICIN 0.016 - 256 µg/mL	NET	<i>Enterobacteriales</i> <i>P. aeruginosa</i> <i>Acinetobacter</i> spp. Other Non-Enterobacteriales <i>Staphylococcus</i> spp.	8 8 8 8 8		16 16 16 16 16	32 32 32 32 32	<i>Enterobacteriales</i> <i>Pseudomonas</i> spp. <i>Acinetobacter</i> spp. <i>S. aureus</i> Coagulase-negative staphylococci PK/PD (Non-species related) breakpoints	2 4 4 1 1 2	4 4 4 1 1 4	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853	≤ 0.25 4-16 ≤ 0.5-1 0.5-8
NITROFURANTOIN 0.032 - 512 µg/mL	F	<i>Enterobacteriales</i> All staphylococci <i>Enterococcus</i> spp.	32 32 32		64 64 64	128 128 128	<i>Enterobacteriales</i> <i>Staphylococcus</i> spp. <i>Enterococcus</i> spp. <i>Streptococcus</i> groups A, B, C and G <i>Aerococcus sanguinicola</i> and <i>urinae</i>	64 64 64 64 16	64 64 64 64 16	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>S. pneumoniae</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 49619	8-32 4-16 4-16 4-16
NORFLOXACIN 0.016 - 256 µg/mL	NOR	<u>For urinary tract isolates only:</u> <i>Enterobacteriales</i> <i>P. aeruginosa</i> Other Non-Enterobacteriales All staphylococci <i>Enterococcus</i> spp.	4 4 4 4 4		8 8 8 8 8	16 16 16 16 16	<i>Enterobacteriales</i>	0.5	0.5	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>S. pneumoniae</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853 ATCC® 49619	0.5-2 2-8 0.03-0.12 1-4 2-8
OFLOXACIN 0.002 - 32 µg/mL	OFX	<i>Enterobacteriales</i> except <i>Salmonella</i> spp. <i>Salmonella</i> spp. <i>P. aeruginosa</i> Other Non-Enterobacteriales All staphylococci <i>Haemophilus</i> spp. <i>S. pneumoniae</i> <i>Streptococcus</i> spp. β-Hemolytic Group <i>Streptococcus</i> spp. Viridans Group FDA ⁴ <i>S. aureus</i> (methicillin susceptible) <i>N. gonorrhoeae</i>	2 0.12 2 2 1 2 2 2 2		4 0.25-1 4 4 2 - 4 4 4	8 2 8 8 4 - 8 8 8	<i>Enterobacteriales</i> <i>S. aureus</i> Coagulase negative staphylococci <i>S. pneumoniae</i> <i>H. influenzae</i> <i>M. catarrhalis</i> <i>N. gonorrhoeae</i> PK/PD (Non-species related) breakpoints	0.25 0.001 0.001 0.12 0.06 0.25 0.12 0.25	0.5 1 1 4 0.06 0.25 0.25 0.5	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>H. influenzae</i> <i>S. pneumoniae</i> <i>N. gonorrhoeae</i> <i>H. influenzae</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853 ATCC® 49247 ATCC® 49619 ATCC® 49226 ATCC® 49766	0.12-1 1-4 0.016-0.12 1-8 0.016-0.06 1-4 0.004-0.016 0.016-0.06

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST			QUALITY CONTROL				
							INTERPRETATIVE CRITERIA ²			S≤	R>	MIC µg/mL	MIC µg/mL	
OMADACYCLINE 0.002 - 32 µg/mL	OMC	FDA ⁴ Enterobacteriaceae <i>S. aureus</i> including MRSA <i>S. lugdunensis</i> <i>E. faecalis</i> <i>S. anginosus</i> group <i>S. pyogenes</i>	4 0.5 0.12 0.25 0.12 0.12		8 1 0.25 0.5 0.25 0.25	16 2 0.5 1 0.5 0.5	Not available			<i>E. coli</i> <i>S. aureus</i> <i>E. faecalis</i> <i>H. influenzae</i> <i>S. pneumoniae</i> <i>B. fragilis</i> <i>B. thetaiotaomicron</i> <i>C. difficile</i> <i>E. lenta</i>	ATCC® 29213 ATCC® 29213 ATCC® 29212 ATCC® 49247 ATCC® 49619 ATCC® 25285 ATCC® 29741 ATCC® 700057 ATCC® 43055	0.25-2 0.12-1 0.06-0.5 0.5-2 0.016-0.12 0.12-1 0.25-1 0.06-0.25 0.06-0.5		
OXACILLIN 0.016 - 256 µg/mL	OX	<i>S. aureus</i> , <i>S. lugdunensis</i> , <i>S. epidermidis</i> <i>S. pseudintermedius</i> and <i>S.</i> <i>schleiferi</i> <i>Staphylococcus</i> spp. except <i>S.</i> <i>aureus</i> , <i>S. lugdunensis</i> , <i>S.</i> <i>epidermidis</i> , <i>S.</i> <i>pseudintermedius</i> , <i>S. schleiferi</i>	2 0.5 0.5 0.5		- - - -	4 1 1 1	<i>S. aureus</i> and <i>S. lugdunensis</i> Coagulase-negative staphylococci (Methicillin/Oxacillin Resistant Staphylococci)			2 0.25 2 0.25	2 2	<i>S. aureus</i> <i>E. faecalis</i>	ATCC® 29213 ATCC® 29212	0.12-0.5 8-32
PENICILLIN G 0.002 - 32 µg/mL 0.016 - 256 µg/mL	P	All staphylococci <i>Enterococcus</i> spp. <i>N. gonorrhoeae</i> <i>S. pneumoniae</i> parenteral (nonmeningitis) <i>S. pneumoniae</i> parenteral (meningitis) <i>S. pneumoniae</i> oral <i>Streptococcus</i> spp. β-Hemolytic Group <i>Streptococcus</i> spp. Viridans Group <i>N. meningitidis</i> Anaerobes	0.12 8 0.06 2 0.06 0.06 0.12 0.12 0.12 0.06 0.5		- - 0.12-1 4 -	0.25 16 2 8 0.12 -	<i>S. aureus</i> <i>S. lugdunensis</i> <i>Streptococcus</i> groups A, B, C and G (other than meningitis) <i>S. agalactiae</i> group B streptococci (meningitis) <i>S. pneumoniae</i> (infections other than meningitis) <i>S. pneumoniae</i> (meningitis) Viridans group streptococci <i>N. gonorrhoeae</i> <i>N. meningitidis</i> Gram-positive anaerobes except <i>C.</i> <i>difficile</i> Gram-negative anaerobes <i>Corynebacterium</i> spp. <i>Aerococcus sanguinicola</i> and <i>urinae</i> <i>K. kingae</i> <i>L. monocytogenes</i> (other than meningitis) <i>P. multocida</i> PK/PD (Non-species related) breakpoints			0.12 0.12 0.25 0.12 0.06 0.06 0.25 0.06 0.25 0.25 0.25 0.25 0.25 0.12 0.12 0.12 0.03 1 0.5 0.25	0.12 0.12 0.25 0.12 2 0.06 0.06 2 1 0.25 0.5 0.5 0.12 0.12 0.12 0.03 1 0.5 2	<i>S. aureus</i> <i>E. faecalis</i> <i>S. pneumoniae</i> <i>N. gonorrhoeae</i> <i>B. fragilis</i> <i>B. thetaiotaomicron</i>	ATCC® 29213 ATCC® 29212 ATCC® 49619 ATCC® 49226 ATCC® 25285 ATCC® 29741	0.25-2 1-4 0.25-1 0.25-1 8-32 8-32
PIPERACILLIN 0.016 - 256 µg/mL	PIP	<i>Enterobacteriales</i> <i>P. aeruginosa</i> <i>Acinetobacter</i> spp. Other Non-Enterobacteriales Anaerobes	16 16 16 16 32		32-64 32-64 32-64 32-64 64	128 128 128 128 128	<i>Enterobacteriales</i> <i>Pseudomonas</i> spp. Gram-positive anaerobes except <i>C.</i> <i>difficile</i> Gram-negative anaerobes PK/PD (Non-species related) breakpoints			8 0.001 8 16 8 16	16 16 16 16 16 16	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>E. coli</i> <i>B. fragilis</i> <i>B. thetaiotaomicron</i> <i>E. lenta</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853 ATCC® 35218 ATCC® 25285 ATCC® 29741 ATCC® 43055	1-4 1-4 1-4 1-8 > 64 4-16 8-64 8-32
PIPERACILLIN-TAZOBACTAM 0.016/4 - 256/4 µg/mL	TZP	<i>Enterobacteriales</i> <i>P. aeruginosa</i> <i>Acinetobacter</i> spp.	16 16 16		32-64 32-64 32-64	128 128 128	<i>Enterobacteriales</i> <i>Pseudomonas</i> spp.			8 0.001	16 16	<i>E. coli</i> <i>P. aeruginosa</i> <i>E. coli</i> <i>K. pneumoniae</i>	ATCC® 25922 ATCC® 27853 ATCC® 35218 ATCC® 700603	1-4 1-8 0.5-2 8-32

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST			QUALITY CONTROL		
							INTERPRETATIVE CRITERIA ²			S≤	R>	MIC µg/mL
PIPERACILLIN-TAZOBACTAM 0.064/4 - 1024/4 µg/mL	TZP	<i>Haemophilus</i> spp.	1		-	2	<i>H. influenzae</i>	0.25	0.25	<i>H. influenzae</i>	ATCC® 49247	0.06-0.5
		Anaerobes	16		32-64	128	Gram-positive anaerobes except <i>C. difficile</i>	8	16	<i>B. fragilis</i>	ATCC® 25285	0.12-0.5
							Gram-negative anaerobes	8	16	<i>B. thetaiotaomicron</i>	ATCC® 29741	4-16
							PK/PD (Non-species related) breakpoints	8	16	<i>E. lenta</i>	ATCC® 43055	4-16
PLAZOMICIN 0.016 - 256 µg/mL	PLZ	EDA ⁴ Enterobacteriaceae	2		4	8	Not available			<i>S. aureus</i>	ATCC® 29213	0.25-2
										<i>E. coli</i>	ATCC® 25922	0.25-2
										<i>P. aeruginosa</i>	ATCC® 27853	1-4
POLYMYXIN B 0.064 - 1024 µg/mL	PB	<i>Enterobacterales</i>	-		2	4	Not available			<i>E. coli</i>	ATCC® 25922	0.25-2
		<i>P. aeruginosa</i>	-		2	4				<i>P. aeruginosa</i>	ATCC® 27853	0.5-2
		<i>Acinetobacter</i> spp.	-		2	4						
QUINUPRISTIN-DALFOPRISTIN 0.002 - 32 µg/mL	QDA	<i>S. aureus</i>	1		2	4	<i>Staphylococcus</i> spp.	1	2	<i>S. aureus</i>	ATCC® 29213	0.25-1
		<i>Enterococcus</i> spp.	1		2	4	<i>Enterococcus</i> spp.	1	4	<i>E. faecalis</i>	ATCC® 29212	2-8
		<i>S. pneumoniae</i>	1		2	4				<i>H. influenzae</i>	ATCC® 49247	2-8
		<i>Streptococcus</i> spp. β-Hemolytic Group	1		2	4				<i>S. pneumoniae</i>	ATCC® 49619	0.25-1
		<i>Streptococcus</i> spp. Viridans Group	1		2	4						
RIFAMPICIN 0.002 - 32 µg/mL 0.016 - 256 µg/mL	RD	All staphylococci	1		2	4	<i>Staphylococcus</i> spp.	0.06	0.5	<i>S. aureus</i>	ATCC® 29213	0.004-0.016
		<i>Enterococcus</i> spp.	1		2	4	<i>Streptococcus</i> groups A, B, C and G	0.06	0.5	<i>E. faecalis</i>	ATCC® 29212	0.5-4
		<i>Haemophilus</i> spp.	1		2	4	<i>S. pneumoniae</i>	0.125	0.5	<i>E. coli</i>	ATCC® 25922	4-16
		<i>S. pneumoniae</i>	1		2	4	<i>H. influenzae</i>	1	1	<i>P. aeruginosa</i>	ATCC® 27853	16-64
		<i>N. meningitidis</i>	0.5		1	2	<i>N. meningitidis</i>	0.25	0.25	<i>H. influenzae</i>	ATCC® 49247	0.25-1
							<i>H. pylori</i>	1	1	<i>S. pneumoniae</i>	ATCC® 49619	0.016-0.06
							<i>Corynebacterium</i> spp.	0.06	0.5	<i>H. influenzae</i>	ATCC® 49766	0.25-1
							<i>Aerococcus sanguinicola</i> and <i>urinae</i>	0.12	0.12			
							<i>K. kingae</i>	0.5	0.5			
SOLITHROMYCIN 0.002 - 32 µg/mL	SOL	Not available					Not available			<i>S. aureus</i>	ATCC® 29213	0.03-0.12
										<i>E. faecalis</i>	ATCC® 29212	0.016-0.06
										<i>H. influenzae</i>	ATCC® 49247	1-4
										<i>S. pneumoniae</i>	ATCC® 49619	0.004-0.016
										<i>N. gonorrhoeae</i>	ATCC® 49226	0.03-0.25
SPECTINOMYCIN 0.064 - 1024 µg/mL	SPC	<i>N. gonorrhoeae</i>	32		64	128	<i>N. gonorrhoeae</i>	64	64	<i>N. gonorrhoeae</i>	ATCC® 49226	8-32
STREPTOMYCIN 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	S	<i>Enterococcus</i> spp. (test for detection of HLAR)	500		-	1000	<i>Enterococcus</i> spp. (test for high-level streptomycin resistance)	512	512	HLAR		
										<i>E. faecalis</i>	ATCC® 29212	< 500
										<i>E. faecalis</i>	ATCC® 51299	≥ 1000
SULBACTAM 0.016 - 256 µg/mL	SUL	Not available					Not available			<i>E. coli</i>	ATCC® 25922	16-64
										<i>K. pneumoniae</i>	ATCC® 700603	32-128
										<i>A. baumannii</i>	NCTC 13304	16-64
TEDIZOLID 0.002 - 32 µg/mL	TZD	<i>S. aureus</i> only including MRSA	0.5		1	2	<i>Staphylococcus</i> spp.	0.5	0.5	<i>S. aureus</i>	ATCC® 29213	0.12-1
		<i>E. faecalis</i>	0.5		-	-	<i>Streptococcus</i> groups A, B, C and G	0.5	0.5	<i>E. faecalis</i>	ATCC® 29212	0.25-1
		<i>S. pyogenes</i> and <i>S. agalactiae</i>	0.5		-	-	<i>S. anginosus</i> group	0.5	0.5	<i>S. aureus</i>	ATCC® 25923	0.12-0.5
		<i>S. anginosus</i> Group	0.25		-	-				<i>S. pneumoniae</i>	ATCC® 49619	0.12-0.5
TEICOPLANIN 0.016 - 256 µg/mL	TEC	All staphylococci	8		16	32	<i>S. aureus</i>	2	2	<i>S. aureus</i>	ATCC® 29213	0.25-1
		<i>Enterococcus</i> spp.	8		16	32	Coagulase-negative staphylococci	4	4	<i>E. faecalis</i>	ATCC® 29212	0.25-1
							<i>Enterococcus</i> spp.	2	2			
							<i>Streptococcus</i> groups A, B, C and G	2	2			
							<i>S. pneumoniae</i>	2	2			
							Viridans group streptococci	2	2			

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹				EUCAST INTERPRETATIVE CRITERIA ²			QUALITY CONTROL		MIC µg/mL
		S≤	SDD MIC µg/mL	I	R≥	S≤	MIC µg/mL	R≥			
TELAVANCIN 0.002 - 32 µg/mL 0.016 - 256 µg/mL	TLV	<i>S. aureus</i> only including MRSA	0.12	-	-	Methicillin-resistant <i>S. aureus</i>	0.125	0.125	<i>S. aureus</i>	ATCC® 29213	0.03-0.12
		Vancomycin-susceptible <i>E. faecalis</i>	0.25	-	-				<i>E. faecalis</i>	ATCC® 29212	0.03-0.12
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.12	-	-				<i>S. pneumoniae</i>	ATCC® 49619	0.004-0.016
		<i>Streptococcus</i> spp. Viridans Group	0.06	-	-						
TEMOCILLIN 0.064 - 1024 µg/mL	TMO	Not available				<i>Enterobacteriales</i> [<i>E. coli</i> , <i>Klebsiella</i> spp. (except <i>K. aerogenes</i>), <i>P. mirabilis</i> only]	0.001	16	<i>E. coli</i>	ATCC® 25922	8-32
TETRACYCLINE 0.016 - 256 µg/mL	TE	<i>Enterobacteriales</i>	4	8	16	<i>Staphylococcus</i> spp.	1	2	<i>S. aureus</i>	ATCC® 29213	0.12-1
		<i>Acinetobacter</i> spp.	4	8	16	<i>Streptococcus</i> groups A, B, C and G	1	2	<i>E. faecalis</i>	ATCC® 29212	8-32
		Other Non- <i>Enterobacteriales</i>	4	8	16	<i>S. pneumoniae</i>	1	2	<i>E. coli</i>	ATCC® 25922	0.5-2
		All staphylococci	4	8	16	<i>H. influenzae</i>	1	2	<i>P. aeruginosa</i>	ATCC® 27853	8-32
		<i>Enterococcus</i> spp.	4	8	16	<i>M. catarrhalis</i>	1	2	<i>H. influenzae</i>	ATCC® 49247	4-32
		<i>Haemophilus</i> spp.	2	4	8	<i>N. gonorrhoeae</i>	0.5	1	<i>S. pneumoniae</i>	ATCC® 49619	0.06-0.5
		<i>N. gonorrhoeae</i>	0.25	0.5-1	2	<i>N. meningitidis</i>	2	2	<i>N. gonorrhoeae</i>	ATCC® 49226	0.25-1
		<i>S. pneumoniae</i>	1	2	4	<i>H. pylori</i>	1	1	<i>B. fragilis</i>	ATCC® 25285	0.125-0.5
		<i>Streptococcus</i> spp. β-Hemolytic Group	2	4	8	<i>C. jejuni</i> and <i>coli</i>	2	2	<i>B. thetaiotaomicron</i>	ATCC® 29741	8-32
		<i>Streptococcus</i> spp. Viridans Group	2	4	8	<i>Corynebacterium</i> spp.	2	2	<i>H. influenzae</i>	ATCC® 49766	0.25-1
		Anaerobes	4	8	16	<i>K. kingae</i>	0.5	0.5			
TICARCILLIN 0.016 - 256 µg/mL	TC	Not available				<i>Enterobacteriales</i>	8	16	<i>S. aureus</i>	ATCC® 29213	2-8
						<i>Pseudomonas</i> spp.	0.001	16	<i>E. faecalis</i>	ATCC® 29212	16-64
						Gram-positive anaerobes except <i>C. difficile</i>	8	16	<i>E. coli</i>	ATCC® 25922	4-16
						Gram-negative anaerobes	16	16	<i>P. aeruginosa</i>	ATCC® 27853	8-32
						PK/PD (Non-species related) breakpoints	8	16	<i>E. coli</i>	ATCC® 35218	> 128
									<i>K. pneumoniae</i>	ATCC® 700603	> 256
TICARCILLIN-CLAVULANIC ACID 0.016/2 - 256/2 µg/mL	TTC	<i>Enterobacteriales</i>	16	32-64	128	<i>Enterobacteriales</i>	8	16	<i>S. aureus</i>	ATCC® 29213	0.5-2
		<i>P. aeruginosa</i>	16	32-64	128	<i>Pseudomonas</i> spp.	0.001	16	<i>E. faecalis</i>	ATCC® 29212	16-64
		<i>Acinetobacter</i> spp.	16	32-64	128	Gram-positive anaerobes except <i>C. difficile</i>	8	16	<i>E. coli</i>	ATCC® 25922	4-16
		<i>B. cepacia</i>	16	32-64	128	Gram-negative anaerobes	8	16	<i>P. aeruginosa</i>	ATCC® 27853	8-32
		<i>S. maltophilia</i>	16	32-64	128	PK/PD (Non-species related) breakpoints	8	16	<i>E. coli</i>	ATCC® 35218	8-32
		Other Non- <i>Enterobacteriales</i>	16	32-64	128				<i>K. pneumoniae</i>	ATCC® 700603	32-128
		Anaerobes	32	64	128				<i>B. fragilis</i>	ATCC® 25285	0.06-0.5
									<i>B. thetaiotaomicron</i>	ATCC® 29741	0.5-2
									<i>E. lenta</i>	ATCC® 43055	8-32
TIGECYCLINE 0.016 - 256 µg/mL	TGC	EDA ⁴				<i>E. coli</i> , <i>C. koseri</i>	0.5	0.5	<i>S. aureus</i>	ATCC® 29213	0.03-0.25
		<i>S. aureus</i> (including methicillin-resistant isolates)	0.5	-	-	<i>Staphylococcus</i> spp.	0.5	0.5	<i>E. faecalis</i>	ATCC® 29212	0.03-0.12
		<i>Streptococcus</i> spp other than <i>S. pneumoniae</i>	0.25	-	-	<i>E. faecalis</i>	0.25	0.25	<i>E. coli</i>	ATCC® 25922	0.03-0.25
		<i>S. pneumoniae</i>	0.06	-	-	<i>E. faecium</i>	0.25	0.25	<i>H. influenzae</i>	ATCC® 49247	0.06-0.5
		<i>E. faecalis</i> (vancomycin-susceptible isolates)	0.25	-	-	<i>Streptococcus</i> groups A, B, C and G	0.125	0.125	<i>S. pneumoniae</i>	ATCC® 49619	0.016-0.12
		<i>Enterobacteriaceae</i>	2	4	8	PK/PD (Non-species related) breakpoints	0.5	0.5	<i>B. fragilis</i>	ATCC® 25285	0.06-0.5
		<i>H. influenzae</i>	0.25	-	-				<i>B. thetaiotaomicron</i>	ATCC® 29741	0.25-1
		Anaerobes	4	8	16				<i>C. difficile</i>	ATCC® 700057	0.03-0.12

Antibiotic	CODE	CLSI INTERPRETATIVE CRITERIA ¹				EUCAST INTERPRETATIVE CRITERIA ²				QUALITY CONTROL		
		S≤	SDD MIC µg/mL	I	R≥	S≤	SDD MIC µg/mL	R>	MIC µg/mL	MIC µg/mL		
TOBRAMYCIN 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	TOB	<i>Enterobacterales</i>	4	8	16	<i>Enterobacterales</i>	2	2	<i>S. aureus</i>	ATCC® 29213	0.12-1	
		<i>P. aeruginosa</i>	4		8	16	<i>Pseudomonas</i> spp.	2	2	<i>E. faecalis</i>	ATCC® 29212	8-32
		<i>Acinetobacter</i> spp.	4		8	16	<i>Acinetobacter</i> spp.	4	4	<i>E. coli</i>	ATCC® 25922	0.25-1
		Other Non-Enterobacterales FDA ⁴	4		8	16	<i>S. aureus</i>	1	1	<i>P. aeruginosa</i>	ATCC® 27853	0.25-1
		<i>S. aureus</i>	4		8	16	Coagulase-negative staphylococci PK/PD (Non-species related) breakpoints	1 0.5	1 0.5			
TRIMETHOPRIM 0.002 - 32 µg/mL	TM	<i>Enterobacterales</i>	8	-	16	<i>Enterobacterales</i>	4	4	<i>S. aureus</i>	ATCC® 29213	1-4	
		All staphylococci	8	-	16	<i>Staphylococcus</i> spp.	4	4	<i>E. faecalis</i>	ATCC® 29212	0.12-0.5	
						<i>Enterococcus</i> spp.	0.03	1	<i>E. coli</i>	ATCC® 25922	0.5-2	
						Streptococcus groups A, B, C and G	2	2	<i>P. aeruginosa</i>	ATCC® 27853	> 64	
						<i>B. pseudomallei</i>	0.001	4				
TRIMETHOPRIM*- SULFAMETHOXAZOLE (1/19) 0.002 - 32* µg/mL	SXT	<i>Enterobacterales</i>	2	-	4	<i>Enterobacterales</i>	2	4	<i>S. aureus</i>	ATCC® 29213	≤ 0.5	
		<i>Acinetobacter</i> spp.	2	-	4	<i>S. maltophilia</i>	0.001	4	<i>E. faecalis</i>	ATCC® 29212	≤ 0.5	
		<i>B. cepacia</i>	2	-	4	<i>Acinetobacter</i> spp.	2	4	<i>E. coli</i>	ATCC® 25922	≤ 0.5	
		<i>S. maltophilia</i>	2	-	4	<i>Staphylococcus</i> spp.	2	4	<i>P. aeruginosa</i>	ATCC® 27853	8-32	
		Other Non-Enterobacterales	2	-	4	<i>Enterococcus</i> spp.	0.03	1	<i>H. influenzae</i>	ATCC® 49247	0.03-0.25	
		All staphylococci	2	-	4	Streptococcus groups A, B, C and G	1	2	<i>S. pneumoniae</i>	ATCC® 49619	0.12-1	
		<i>Haemophilus</i> spp.	0.5	1-2	4	<i>S. pneumoniae</i>	1	2	<i>H. influenzae</i>	ATCC® 49766	0.016-0.06	
		<i>S. pneumoniae</i>	0.5	1-2	4	<i>H. influenzae</i>	0.5	1				
		<i>N. meningitidis</i>	0.12	0.25	0.5	<i>M. catarrhalis</i>	0.5	1				
						<i>L. monocytogenes</i>	0.06	0.06				
						<i>P. multocida</i>	0.25	0.25				
						<i>K. kingae</i>	0.25	0.25				
						<i>Aeromonas</i> spp.	2	4				
				<i>A. xylosoxidans</i>	0.12	0.12						
VANCOMYCIN 0.016 - 256 µg/mL	VA	<i>S. aureus</i> only	2	4-8	16	<i>S. aureus</i>	2	2	<i>S. aureus</i>	ATCC® 29213	0.5-2	
		<i>Staphylococcus</i> spp. other than <i>S. aureus</i>	4	8-16	32	Coagulase-negative staphylococci <i>Enterococcus</i> spp.	4 4	4 4	<i>E. faecalis</i>	ATCC® 29212	1-4	
		<i>Enterococcus</i> spp.	4	8-16	32	Streptococcus groups A, B, C and G	2	2	<i>S. pneumoniae</i>	ATCC® 49619	0.12-0.5	
		<i>S. pneumoniae</i>	1	-	-	<i>S. pneumoniae</i>	2	2				
		Streptococcus spp. β-Hemolytic Group	1	-	-	Viridans group streptococci	2	2				
		Streptococcus spp. Viridans Group	1	-	-	Gram-positive anaerobes except <i>C. difficile</i>	2	2				
						<i>C. difficile</i>	2	2				
						<i>Corynebacterium</i> spp.	2	2				
						<i>Aerococcus sanguinicola</i> and <i>urinae</i>	1	1				
						<i>Bacillus</i> spp. except <i>B. anthracis</i>	2	2				

Note: For combination agents, MIC values are expressed as the concentration of the first component of the combination.

References

1. CLSI. Performance Standards for Antimicrobial Susceptibility Testing; 31st ed. CLSI supplement M100S. Wayne, PA: Clinical and Laboratory Standards Institute; 2021.
2. The European Committee on Antimicrobial Susceptibility Testing. Breakpoint tables for interpretation of MICs and zone diameters. Version 11.0, 2021. http://www.eucast.org/clinical_breakpoints/
3. The European Committee on Antimicrobial Susceptibility Testing. Routine and extended internal quality control for MIC determination and disk diffusion as recommended by EUCAST. Version 11.0, 2021. <http://www.eucast.org>.
4. U.S. Food & Drug Administration. FDA-Identified Interpretive Criteria and/or Exceptions to the Recognized Standard of CLSI M100. <https://www.fda.gov/STIC>.
 - Antibacterial Susceptibility Test Interpretive Criteria - Content current as of: 13-Oct-2020.

Antifungal	CODE	CLSI INTERPRETATIVE CRITERIA ^{5,6}			EUCAST INTERPRETATIVE CRITERIA ⁷			QUALITY CONTROL			
		S≤	I	R≥	S≤	I	R≥	MIC µg/mL			
AMPHOTERICIN B 0.002 - 32 µg/mL	AMB	Not available			<i>C. albicans</i>	1	1	<i>C. parapsilosis</i>	ATCC® 22019	0.25-1	
					<i>C. glabrata</i>	1	1	<i>C. krusei</i>	ATCC® 6258	0.5-2	
					<i>C. krusei</i>	1	1	<i>C. albicans</i>	ATCC® 90028	0.125-0.5	
					<i>C. parapsilosis</i>	1	1				
					<i>C. tropicalis</i>	1	1				
					<i>A. fumigatus</i>	1	2				
					<i>A. niger</i>	1	2				
ANIDULAFUNGIN 0.002 - 32 µg/mL	AND	<i>C. albicans</i>	0.25	0.5	1	<i>C. albicans</i>	0.03	0.03	<i>C. parapsilosis</i>	ATCC® 22019	0.5-4
		<i>C. glabrata</i>	0.12	0.25	0.5	<i>C. glabrata</i>	0.06	0.06	<i>C. krusei</i>	ATCC® 6258	0.016-0.125
		<i>C. tropicalis</i>	0.25	0.5	1	<i>C. krusei</i>	0.06	0.06	<i>C. albicans</i>	ATCC® 90028	0.002-0.008
		<i>C. krusei</i>	0.25	0.5	1	<i>C. parapsilosis</i>	0.002	4			
		<i>C. parapsilosis</i>	2	4	8	<i>C. tropicalis</i>	0.06	0.06			
		<i>C. guilliermondii</i>	2	4	8						
CASPOFUNGIN 0.002 - 32 µg/mL	CAS	<i>C. albicans</i>	0.25	0.5	1	Not available			<i>C. parapsilosis</i>	ATCC® 22019	0.25-2
		<i>C. glabrata</i>	0.12	0.25	0.5				<i>C. krusei</i>	ATCC® 6258	0.25-1
		<i>C. tropicalis</i>	0.25	0.5	1				<i>C. albicans</i>	ATCC® 90028	0.064-0.25
		<i>C. krusei</i>	0.25	0.5	1						
		<i>C. parapsilosis</i>	2	4	8						
		<i>C. guilliermondii</i>	2	4	8						
FLUCONAZOLE 0.016 - 256 µg/mL	FLU	<i>C. albicans</i>	2	4	8	<i>C. albicans</i>	2	4	<i>C. parapsilosis</i>	ATCC® 22019	1-8
		<i>C. glabrata</i>	-	32	64	<i>C. glabrata</i>	0.002	32	<i>C. krusei</i>	ATCC® 6258	128≥256
		<i>C. parapsilosis</i>	2	4	8	<i>C. parapsilosis</i>	2	4	<i>C. albicans</i>	ATCC® 90028	0.125-0.5
		<i>C. tropicalis</i>	2	4	8	<i>C. tropicalis</i>	2	4			
FLUCYTOSINE 0.002 - 32 µg/mL	FC	Not available			Not available			<i>C. parapsilosis</i>	ATCC® 22019	0.064-0.25	
								<i>C. krusei</i>	ATCC® 6258	≥32	
								<i>C. albicans</i>	ATCC® 90028	0.5-2	
ISAVUCONAZOLE 0.002 - 32 µg/mL	IVU	Not available			<i>A. fumigatus</i>	1	1	<i>C. parapsilosis</i>	ATCC® 22019	0.008-0.032	
					<i>A. nidulans</i>	0.25	0.25	<i>C. krusei</i>	ATCC® 6258	0.125-1	
					<i>A. terreus</i>	1	1	<i>C. albicans</i>	ATCC® 90028	0.008-0.032	
ITRACONAZOLE 0.002 - 32 µg/mL	ITC	FDA ⁸				<i>C. albicans</i>	0.06	0.06	<i>C. parapsilosis</i>	ATCC® 22019	0.064-0.25
		<i>C. albicans</i>	0.125	0.25-0.5	1	<i>C. dubliniensis</i>	0.06	0.06	<i>C. krusei</i>	ATCC® 6258	0.25-1
						<i>C. parapsilosis</i>	0.12	0.12	<i>C. albicans</i>	ATCC® 90028	0.064-0.25
						<i>C. tropicalis</i>	0.12	0.12			
						<i>A. flavus</i>	1	2			
						<i>A. fumigatus</i>	1	2			
						<i>A. nidulans</i>	1	2			
						<i>A. terreus</i>	1	2			
KETOCONAZOLE 0.002 - 32 µg/mL	KE	Not available			Not available			<i>C. parapsilosis</i>	ATCC® 22019	0.032-0.125	
								<i>C. krusei</i>	ATCC® 6258	0.25-1	
								<i>C. albicans</i>	ATCC® 90028	0.008-0.032	
MICAFUNGIN 0.002 - 32 µg/mL	MYC	<i>C. albicans</i>	0.25	0.5	1	<i>C. albicans</i>	0.016	0.016	<i>C. parapsilosis</i>	ATCC® 22019	0.25-2
		<i>C. glabrata</i>	0.06	0.12	0.25	<i>C. glabrata</i>	0.03	0.03	<i>C. krusei</i>	ATCC® 6258	0.032-0.25
		<i>C. tropicalis</i>	0.25	0.5	1	<i>C. parapsilosis</i>	0.002	2	<i>C. albicans</i>	ATCC® 90028	0.004-0.032
		<i>C. krusei</i>	0.25	0.5	1						
		<i>C. parapsilosis</i>	2	4	8						
		<i>C. guilliermondii</i>	2	4	8						
POSACONAZOLE 0.002 - 32 µg/mL	POS	Not available			<i>C. albicans</i>	0.06	0.06	<i>C. parapsilosis</i>	ATCC® 22019	0.032-0.25	
					<i>C. dubliniensis</i>	0.06	0.06	<i>C. krusei</i>	ATCC® 6258	0.125-0.5	
					<i>C. parapsilosis</i>	0.06	0.06	<i>C. albicans</i>	ATCC® 90028	0.032-0.125	
					<i>C. tropicalis</i>	0.06	0.06				
					<i>A. fumigatus</i>	0.12	0.25				
					<i>A. terreus</i>	0.12	0.25				

Antifungal	CODE	CLSI			EUCAST			QUALITY CONTROL			
		INTERPRETATIVE CRITERIA ^{5,6}	S≤	I	R≥	INTERPRETATIVE CRITERIA ⁷	S≤	R>	MIC µg/mL		
VORICONAZOLE 0.002 - 32 µg/mL	VO	<i>C. albicans</i>	0.12	0.25-0.5	1	<i>C. albicans</i>	0.06	0.25	<i>C. parapsilosis</i>	ATCC® 22019	0.016-0.064
		<i>C. krusei</i>	0.5	1	2	<i>C. dubliniensis</i>	0.06	0.25	<i>C. krusei</i>	ATCC® 6258	0.25-1
		<i>C. parapsilosis</i>	0.12	0.25-0.5	1	<i>C. parapsilosis</i>	0.12	0.25	<i>C. albicans</i>	ATCC® 90028	0.004-0.016
		<i>C. tropicalis</i>	0.12	0.25-0.5	1	<i>C. tropicalis</i>	0.12	0.25			
		<i>A. fumigatus</i>	0.5	1	2	<i>A. fumigatus</i>	1	2			

ANTIMYCOBACTERIAL	CODE	INTERPRETATIVE CRITERIA	QUALITY CONTROL	MIC µg/mL
ETHAMBUTOL 0.016 - 256 µg/mL	EB	Not available	<i>M. tuberculosis</i>	0.064-0.25
ETHIONAMIDE 0.016 - 256 µg/mL	ET	Not available	<i>M. tuberculosis</i>	0.016-0.064
ISONIAZIDE 0.016 - 256 µg/mL	IZ	Not available	<i>M. tuberculosis</i>	0.016-0.064

References (Cont.)

- CLSI. Performance Standards for Antifungal Susceptibility Testing of Yeasts; 2nd ed. CLSI supplement M60. Wayne, PA: Clinical and Laboratory Standards Institute; 2020.
- CLSI. Performance Standards for Antifungal Susceptibility Testing of Filamentous Fungi; 2nd ed. CLSI supplement M61. Wayne, PA: Clinical and Laboratory Standards Institute; 2020.
- The European Committee on Antimicrobial Susceptibility Testing. Antifungal Agents. Breakpoint tables for interpretation of MICs. Version 9.0, valid from 2018-02-12.
- U.S. Food & Drug Administration. FDA-Identified Interpretive Criteria and/or Exceptions to the Recognized Standard of CLSI M100. <https://www.fda.gov/STIC>.
 - Antifungal Susceptibility Test Interpretive Criteria - Content current as of: 13-Dec-2017.



LIOFILCHEM® s.r.l.

Via Scozia, 64026 Roseto degli Abruzzi (TE) Italy
Tel. +39 0858930745 Fax +39 0858930330

www.liofilchem.com liofilchem@liofilchem.com



RESISTANCE DETECTION

ESBL: Extended Spectrum Beta Lactamase	CODE	INTERPRETATIVE CRITERIA	QUALITY CONTROL		MIC µg/mL
CEFEPIME / CEFEPIME + CLAVULANIC ACID (4 µg/mL) 0.25-16 / 0.064-4 µg/mL	FEP/FEL	FEP ≥ 0.25 µg/mL and FEP/FEL ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>P. aeruginosa</i>	ATCC® 27853	FEP 0.5-2 FEL 1-4
			<i>K. pneumoniae</i>	ATCC® 700603	FEP 0.25-1 FEL 0.064-0.25
CEFOTAXIME / CEFOTAXIME + CLAVULANIC ACID (4 µg/mL) 0.25-16 / 0.016-1 µg/mL	CTX/CTL	CTX ≥ 0.5 µg/mL and CTX/CTL ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>E. coli</i>	ATCC® 35218	CTX ≤ 0.25 CTL 0.016-0.064
			<i>K. pneumoniae</i>	ATCC® 700603	CTX 1-4 CTL 0.125-1
CEFTAZIDIME / CEFTAZIDIME + CLAVULANIC ACID (4 µg/mL) 0.5-32 / 0.064-4 µg/mL	CAZ/CAL	CAZ ≥ 1 µg/mL and CAZ/CAL ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>E. coli</i>	ATCC® 35218	CAZ ≤ 0.5 CAL ≤ 0.064
			<i>K. pneumoniae</i>	ATCC® 700603	CAZ ≥ 8 CAL 0.125-0.5

MBL: Metallo Beta Lactamase	CODE	INTERPRETATIVE CRITERIA	QUALITY CONTROL		MIC µg/mL
IMIPENEM / IMIPENEM + EDTA 4-256 / 1-64 µg/mL 0.125-8 / 0.032-2 µg/mL	IMI/IMD	IMI/IMD ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>P. aeruginosa</i>	ATCC® 27853	MBL negative
			<i>S. maltophilia</i>	ATCC® 13636	MBL positive
MEROPENEM / MEROPENEM + EDTA 0.125-8 / 0.032-2 µg/mL	MRP/MRD	MRP/MRD ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>K. pneumoniae</i>	ATCC® 700603	MBL negative
			<i>K. pneumoniae</i>	ATCC® BAA-2146	MBL positive

GRD: Glycopeptide Resistance Detection	CODE	INTERPRETATIVE CRITERIA	QUALITY CONTROL		MIC µg/mL
VANCOMYCIN / TEICOPLANIN 0.5-32 / 0.5-32 µg/mL	VA/TEC	VA or TEC ≥ 8 µg/mL • GISA: GRD+ and MIC Test Strip VA M.I.C. ≥ 4 µg/mL • hGISA: GRD+ and MIC Test Strip VA M.I.C. < 4 µg/mL	<i>S. aureus</i>	ATCC® 29213	VA 0.5-2 TEC 1-4
			<i>S. aureus</i>	ATCC® 700698	VA 1-8 TEC ≥ 32
			<i>S. aureus</i>	ATCC® 700699	VA 4-16 TEC ≥ 32

AmpC	CODE	INTERPRETATIVE CRITERIA	Tentative QUALITY CONTROL		MIC µg/mL
CEFOTETAN / CEFOTETAN+ CLOXACILLIN 0.5-32 / 0.5-32 µg/mL	CTT/CXT	CTT/CXT ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>K. pneumoniae</i>	ATCC® 700603	CTT 0.5-2 CXT 0.5-2
			<i>K. pneumoniae</i>	ATCC® BAA-1144	CTT ≥ 32 CXT 0.5-1

KPC: Klebsiella Producing Carbapenemase	CODE	INTERPRETATIVE CRITERIA	QUALITY CONTROL		Result
ERTAPENEM / ERTAPENEM + PHENYLBORONIC ACID 0.125-8 / 0.032-2 µg/mL	ETP/EBO	ETP/EBO ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>K. pneumoniae</i>	ATCC® BAA-1706	KPC negative
MEROPENEM / MEROPENEM + PHENYLBORONIC ACID 0.125-8 / 0.032-2 µg/mL	MRP/MBO	MRP/MBO ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>K. pneumoniae</i>	ATCC® BAA-1705	KPC positive

Note: These tests are NOT intended for the determination of the MIC.

Veterinary

Antibiotic	CODE	INTERPRETATIVE CRITERIA ⁹	Swine			Cattle			Poultry			Horses			Dogs			Cats		
			S≤	I	R≥	S≤	I	R≥	S≤	I	R≥	S≤	I	R≥	S≤	I	R≥	S≤	I	R≥
MIC µg/mL																				
AMIKACIN 0.016 - 256 µg/mL	AK	<i>E. coli</i>																		
		<i>E. coli</i> (foals)																		
		<i>E. coli</i> (adults)																		
		<i>P. aeruginosa</i>																		
AMOXICILLIN*- CLAVULANIC ACID (2/1) 0.016 - 256* µg/mL	AUG	<i>E. coli</i>																		
		UTI (dogs)																		
		<i>Staphylococcus</i> spp.																		
		UTI (dogs)																		
AMPICILLIN 0.016 - 256 µg/mL	AMP	<i>Streptococcus</i> spp.																		
		<i>P. multocida</i>																		
		<i>E. coli</i>				0.25	0.5	1												
		UTI (dogs)																		
		<i>S. pseudintermedius</i>																		
		<i>Staphylococcus</i> spp.																		
		<i>B. bronchiseptica</i>	0.5	1	2															
		<i>M. haemolytica</i>				0.03	0.06- 0.12	0.25												
CEFAZOLIN 0.016 - 256 µg/mL	KZ	<i>P. multocida</i>	0.5	1	2	0.03	0.06- 0.12	0.25												
		<i>A. pleuropneumoniae</i>	0.5	1	2															
		<i>H. somni</i>				0.03	0.06- 0.12	0.25												
		<i>E. coli</i>																		
CEPHALOTHIN 0.016 - 256 µg/mL	KF	<i>E. coli, K. pneumoniae, P. mirabilis</i> - UTI (dogs)																		
		<i>S. aureus</i> and <i>S. pseudintermedius</i>																		
		<i>Streptococcus</i> spp. β-Hemolytic Group																		
		<i>P. multocida</i>																		
CEFPODOXIME 0.016 - 256 µg/mL	PX	<i>S. aureus</i> and <i>S. pseudintermedius</i>																		
		<i>Streptococcus</i> spp. β-Hemolytic Group																		
		<i>E. coli, P. mirabilis</i> -																		
		<i>S. aureus</i> and <i>S. pseudintermedius</i>																		
CEFPODOXIME 0.016 - 256 µg/mL	PX	<i>S. canis</i>																		
		<i>P. multocida</i>																		
		<i>P. multocida</i>																		

Antibiotic	CODE	INTERPRETATIVE CRITERIA ⁹	Swine			Cattle			Poultry			Horses			Dogs			Cats					
			S≤	I	R≥	S≤	I	R≥	S≤	I	R≥	S≤	I	R≥	S≤	I	R≥	S≤	I	R≥			
MIC µg/mL																							
CLINDAMYCIN 0.016 - 256 µg/mL	CD	<i>Staphylococcus</i> spp.														0.5	1-2	4					
		<i>Streptococcus</i> spp. β-Hemolytic Group															0.5	1-2	4				
DOXYCYCLINE 0.016 - 256 µg/mL	DXT	<i>E. coli</i>										0.12	0.25	0.5									
		<i>S. pseudintermedius</i>														0.12	0.25	0.5					
		<i>S. aureus</i>											0.12	0.25	0.5								
		<i>S. equi</i>											0.12	0.25	0.5								
ENROFLOXACIN 0.002 - 32 µg/mL	ENR	Enterobacteriaceae														0.5	1-2	4		0.5	1-2	4	
		<i>E. coli</i>									0.25	0.5-1	2	0.12	0.25	0.5							
		<i>P. aeruginosa</i>												0.12	0.25	0.5					0.5	1-2	4
		<i>Staphylococcus</i> spp.												0.12	0.25	0.5					0.5	1-2	4
		<i>S. aureus</i>												0.12	0.25	0.5							
		<i>Streptococcus</i> spp.															0.5	1-2	4		0.5	1-2	4
		<i>S. equi</i>												0.12	0.25	0.5							
		<i>S. suis</i>	0.5	1	2																		
		<i>M. haemolytica</i>					0.25	0.5-1	2														
		<i>P. multocida</i>	0.25	0.5	1		0.25	0.5-1	2														
<i>A. pleuropneumoniae</i>	0.25	0.5	1																				
<i>H. somni</i>					0.25	0.5-1	2																
GENTAMICIN 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	CN	Enterobacteriaceae											2	4	8		2	4	8				
		<i>P. aeruginosa</i>												2	4	8		2	4	8			
		<i>A. pleuropneumoniae</i>												2	4	8							
FLORFENICOL 0.016 - 256 µg/mL	FFC	<i>S. enterica</i>	4	8	16																		
		<i>S. suis</i>	2	4	8																		
		<i>B. bronchiseptica</i>	2	4	8																		
		<i>M. haemolytica</i>					2	4	8														
		<i>P. multocida</i>	2	4	8		2	4	8														
		<i>A. pleuropneumoniae</i>	2	4	8																		
		<i>H. somni</i>					2	4	8														
MARBOFLOXACIN 0.002 - 32 µg/mL	MAR	Enterobacteriaceae														1	2	4		1	2	4	
		<i>Staphylococcus</i> spp.															1	2	4		1	2	4
		<i>Streptococcus</i> spp.															1	2	4		1	2	4
MINOCYCLINE 0.016 - 256 µg/mL	MN	<i>E. coli</i>											0.12	0.25	0.5								
		<i>S. pseudintermedius</i>														0.5	1	2					
		<i>S. aureus</i>												0.12	0.25	0.5							
		<i>Streptococcus</i> spp.												0.12	0.25	0.5							
PENICILLIN G 0.002 - 32 µg/mL 0.016 - 256 µg/mL	P	<i>Staphylococcus</i> spp.												0.5	1	2							
		<i>S. suis</i>	0.25	0.5	1																		
		<i>M. haemolytica</i>					0.25	0.5	1														
		<i>P. multocida</i>	0.25	0.5	1		0.25	0.5	1														
		<i>H. somni</i>					0.25	0.5	1														
PIPERACILLIN- TAZOBACTAM 0.016/4 - 256/4 µg/mL	TZP	Enterobacteriaceae														8	16	32					
		<i>P. aeruginosa</i>															8	16	32				

Antibiotic	CODE	INTERPRETATIVE CRITERIA ⁹	Swine			Cattle			Poultry			Horses			Dogs			Cats					
			S≤	I	R≥	S≤	I	R≥	S≤	I	R≥	S≤	I	R≥	S≤	I	R≥	S≤	I	R≥			
MIC µg/mL																							
SPECTINOMYCIN 0.064 - 1024 µg/mL	SPC	<i>M. haemolytica</i>				32	64	128															
		<i>P. multocida</i>				32	64	128															
		<i>H. somni</i>				32	64	128															
TETRACYCLINE 0.016 - 256 µg/mL	TE	<i>Staphylococcus</i> spp.	1												0.25	0.5	1						
		<i>S. suis</i>	0.5	1	2																		
		<i>M. haemolytica</i>				2	4	8															
		<i>P. multocida</i>	0.5	1	2	2	4	8															
		<i>A. pleuropneumoniae</i>	0.5	1	2																		
TIAMULIN 0.002 - 32 µg/mL	TIA	<i>H. somni</i>				2	4	8															
		<i>A. pleuropneumoniae</i>	16	-	32																		
TILMICOSIN 0.002 - 32 µg/mL	TIL	<i>A. pleuropneumoniae</i>	8	16	32																		

Note: For combination agents, MIC values are expressed as the concentration of the first component of the combination.

For QC ranges not shown below, see the clinical section

Antibiotic	CODE	<i>S. aureus</i> ATCC® 29213	<i>E. faecalis</i> ATCC® 29212	<i>E. coli</i> ATCC® 25922	<i>P. aeruginosa</i> ATCC® 27853	<i>S. pneumoniae</i> ATCC® 49619
		QUALITY CONTROL MIC µg/mL				
ENROFLOXACIN 0.002 - 32 µg/mL	ENR	0.03-0.12	0.12-1	0.008-0.03	1-4	
FLORFENICOL 0.016 - 256 µg/mL	FFC	2-8	2-8	2-8		1-4
MARBOFLOXACIN 0.002 - 32 µg/mL	MAR	0.12-0.5	0.5-2	0.008-0.03	0.5-2	
TIAMULIN 0.002 - 32 µg/mL	TIA	0.5-2				0-5-4
TILMICOSIN 0.002 - 32 µg/mL	TIL	1-4	8-32			

References (Cont.)

- CLSI. Performance Standards for Antimicrobial Disk and Dilution Susceptibility Tests for Bacteria Isolated From Animals; 4th ed. CLSI supplement VET08. Wayne, PA: Clinical and Laboratory Standards Institute; 2018.



LIOFILCHEM® s.r.l.

Via Scozia, 64026 Roseto degli Abruzzi (TE) Italy
Tel. +39 0858930745 Fax +39 0858930330

www.liofilchem.com liofilchem@liofilchem.com



**EG-Konformitätserklärung
CE-Declaration de Conformité / EC-Declaration of Conformity**

**CE
Nr./No. 145**

Wir / Nous / We

sifin diagnostics gmbh,
Berliner Allee 317-321, 13088 Berlin, Germany

erklären in eigener Verantwortung, dass
déclarons sous notre propre responsabilité que / declare on our own responsibility that

das Medizinprodukt (IVD):
le dispositif médical (IVD):
the medical device (IVD):

**Anti-Salmonella OMA
Anti-Salmonella OMB
Anti-Salmonella OMC
Anti-Salmonella OMD
Anti-Salmonella OME
Anti-Salmonella OMF
Anti-Salmonella OMG**

Sonstiges Produkt

Other device/Autre dispositif

allen Anforderungen der Richtlinie 98/79/EG entspricht.
remplit toutes les exigences de la Directive 98/79/EG qui le concernait.
meets all the provisions of the Directive 98/79/EG which apply to it.

Angewandte harmonisierte Normen:
Normes harmonisés appliqués:
Applied harmonized standards:

DIN EN ISO 13485:2012, DIN EN 13612:2002,
DIN EN 13641:2002, DIN EN ISO 14971:2013,
DIN EN ISO 15223-1:2017, DIN EN ISO 18113-1:2013,
DIN EN ISO 18113-2:2013, DIN EN ISO 23640:2015

Konformitätsbewertungsverfahren:
Procédure d'évaluation de la conformité:
Conformity assessment procedure:

Anhang III
Annexe III
Annex III

Gültig bis:
Valable jusqu'au:
Valid until:

2018-10

Berlin, 01.03.2018

Dr. T. Schwarz 

Sicherheitsbeauftragter für Medizinprodukte
Agent de sécurité /Safety Officer