



SRL SANMEDICO
A. Corobceanu Street 7A, apt. 9,
Chişinău MD-2012,
Moldova

Mast Group Ltd.
Mast House
Derby Road
Bootle
Merseyside L20 1EA
United Kingdom

Tel: +44 (0) 151 933 7277

www.mast-group.com

TO WHOM IT MAY CONCERN

LETTER OF AUTHORISATION

This letter is to confirm, SRL SANMEDICO of address A. Corobceanu Street 7A, apt. 9, Chişinău MD-2012, Moldova is authorised to register products, present proposals, offer quotations and accept orders and to participate in tenders as required for Mast Group Limited products.

The undersigned herewith states that the above is true and correct.

Yours faithfully,

Susan Thomson

Bootle UK

January 11th 2024

International business Manager, on behalf of Mast Group

Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2015

This is to certify that:

Mast Group Ltd
Mast House, Derby Road
Bootle
Liverpool
L20 1EA
United Kingdom

Holds Certificate Number:

FM 724380

and operates a Quality Management System which complies with the requirements of ISO 9001:2015 for the following scope:

Design, manufacture and supply of in-vitro diagnostic devices and associated services.

For and on behalf of BSI:



Matt Page, Managing Director Assurance - UK & Ireland

Original Registration Date: 1994-06-14

Latest Revision Date: 2024-03-05

Effective Date: 2024-06-01

Expiry Date: 2027-05-31



Page: 1 of 2

...making excellence a habit.™

Certificate No: FM 724380

| Location | Registered Activities |
|--|---|
| Mast Group Ltd Mast House, Derby Road Bootle Liverpool L20 1EA United Kingdom | Design, manufacture and supply of in-vitro diagnostic devices and associated services. |
| Mast Group Ltd Atlantic House, Derby Road Bootle Liverpool L20 1EA United Kingdom | Manufacturing, QC and warehousing of IVD kits and reagents, bacteriological media and other kits and reagents for the life sciences industry. |



Original Registration Date: 1994-06-14
Latest Revision Date: 2024-03-05

Effective Date: 2024-06-01
Expiry Date: 2027-05-31

Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 13485:2016 & EN ISO 13485:2016

This is to certify that:

Mast Group Ltd
Mast House, Derby Road
Bootle
Liverpool
L20 1EA
United Kingdom

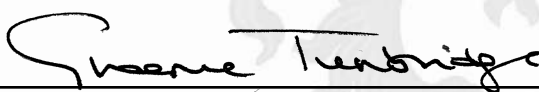
Holds Certificate Number:

MD 724379

and operates a Quality Management System which complies with the requirements of ISO 13485:2016 & EN ISO 13485:2016 for the following scope:

Design, development, manufacture, installation, service and distribution of in-vitro diagnostic reagents and instruments for clinical microbiology and molecular biology and bacteriological media.

For and on behalf of BSI:



Graeme Tunbridge, Senior Vice President Global Regulatory & Quality

Original Registration Date: 2020-10-07

Latest Revision Date: 2024-05-09

Effective Date: 2024-06-01

Expiry Date: 2027-05-31

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...making excellence a habit.™

Certificate No: MD 724379

| Location | Registered Activities |
|---|---|
| Mast Group Ltd Mast House, Derby Road Bootle Liverpool L20 1EA United Kingdom | Design, manufacture, distribution and customer services of in-vitro diagnostic devices for clinical microbiology, molecular biology, and bacteriological media. |
| Mast Group Ltd Atlantic House, Derby Road Bootle Liverpool L20 1EA United Kingdom | Manufacture, instrument support, storage and distribution of in-vitro diagnostic devices for clinical microbiology, molecular biology and bacteriological media. Installation and servicing of in-vitro diagnostic instruments. |
| Mast Group Ltd Unit 107, Tenth Avenue, Zone three, Deeside Industrial Park, Deeside Flintshire CH5 2UA United Kingdom | Design, manufacture, instrument support, storage and distribution of in-vitro diagnostic devices for clinical microbiology, molecular biology and bacteriological media. Installation and servicing of in-vitro diagnostic instruments. |

Original Registration Date: 2020-10-07

Latest Revision Date: 2024-05-09

Effective Date: 2024-06-01

Expiry Date: 2027-05-31

Page: 2 of 2

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract.
An electronic certificate can be authenticated [online](#).
Printed copies can be validated at www.bsigroup.com/ClientDirectory

Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.



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EC DECLARATION OF CONFORMITY

We hereby declare that the devices described below comply with those provisions which apply to them of the European Directive 98/79/EC 'on *in vitro* diagnostic medical devices', and are placed on the European market by Mast Group UK through our appointed EC Authorised Representative Mast Diagnostica GmbH, Feldstrasse 20, 23858 Reinfeld, Germany.

This declaration is valid for the IVD medical devices described below on or after the date hereof, and which bear the CE mark. It is also valid for all IVD medical devices described below which are manufactured by Mast and placed on the market on or after the date hereof by third parties with our consent and which bear the CE mark. All supporting documents relating to this declaration are retained at the manufacturer's premises.

| Product code | Product description | IVD Directive classification | EDMS code |
|--------------|--|--|--|
| Various | MAST® ID identification test paper products - discs, rings and strips. Products for presumptive identification of biochemical reactions or detection of a specific reaction profiles in microbes. | Self certification Annex III excluding section 6 | 1402020100, 1402020200, 1402020400, 1402020800, 1402029000. (codes registered - 24/03/2003) |

Standards applied: EN ISO 13485:2016, ISO 9001:2015, EN ISO 14971:2019, EN ISO 18113-1:2011, EN ISO 18113-2:2011, EN ISO 15223-1:2016, EN ISO 15223-2:2010.

Declaration made by Date: 22 March 2022

D N Hogben, Quality Assurance and Regulatory Affairs Manager – Mast Group Ltd.

Document valid till: 26th May 2025



**European In Vitro Diagnostic Medical Directive 98/79/EC, Annex III – General IVD
EC DECLARATION OF CONFORMITY - Self-Certification (Annex III excluding section 6) – General IVD**

Annex – list of MAST® ID identification test paper products

| Serial No. | Device ID Number | Product Description | Pack Size | Brand Name | Intended purpose of the medical device type |
|------------|------------------|-----------------------------|--------------|---------------|---|
| 1 | D40C | Bacitracin Discs 0.04 units | 5 x 50 Discs | MASTDISCS® ID | For presumptive Identification of Group A streptococci. |
| 2 | D40 | Bacitracin Discs 0.04 units | 100 Discs | MASTDISCS® ID | For presumptive Identification of Group A streptococci. |
| 3 | D41C | Bacitracin Discs 0.1 Unit | 5 x 50 Discs | MASTDISCS® ID | For presumptive Identification of Group A streptococci. |
| 4 | D41 | Bacitracin Discs 0.1 Unit | 100 Discs | MASTDISCS® ID | For presumptive Identification of Group A streptococci. |
| 5 | D42C | Optochin Discs 5ug | 5 x 50 Discs | MASTDISCS® ID | For presumptive Identification of Strep. pneumoniae. |
| 6 | D42 | Optochin Discs 5ug | 100 Discs | MASTDISCS® ID | For presumptive Identification of Strep. pneumoniae. |
| 7 | D43C | X Factor Discs | 5 x 50 Discs | MASTDISCS® ID | For presumptive Identification of Haemophilus spp. |
| 8 | D43 | X Factor Discs | 100 Discs | MASTDISCS® ID | For presumptive Identification of Haemophilus spp. |
| 9 | D44C | V Factor Discs | 5 x 50 Discs | MASTDISCS® ID | For presumptive Identification of Haemophilus spp. |
| 10 | D44 | V Factor Discs | 100 Discs | MASTDISCS® ID | For presumptive Identification of Haemophilus spp. |
| 11 | D45C | X+V Factor Discs | 5 x 50 Discs | MASTDISCS® ID | For presumptive Identification of Haemophilus spp. |
| 12 | D45 | X+V Factor Discs | 100 Discs | MASTDISCS® ID | For presumptive Identification of Haemophilus spp. |



| Serial No. | Device ID Number | Product Description | Pack Size | Brand Name | Intended purpose of the medical device type |
|------------|------------------|--|--------------|------------------|---|
| 13 | D46C | Metronidazole Discs | 5 x 50 Discs | MASTDISCS® ID | For presumptive Identification of Gardnerella vaginalis. |
| 14 | D46 | Metronidazole Discs 50ug | 100 Discs | MASTDISCS® ID | For presumptive Identification of Gardnerella vaginalis. |
| 15 | D47C | Sulphathiazole Discs | 5 x 50 Discs | MASTDISCS® ID | For presumptive Identification of Gardnerella vaginalis. |
| 16 | D47 | Sulphathiazole Discs 1ug | 100 Discs | MASTDISCS® ID | For presumptive Identification of Gardnerella vaginalis. |
| 17 | D48 | Lysostaphin Discs 20ug | 50 Discs | MASTDISCS® ID | For presumptive Identification of Staphylococci/micrococci. |
| 18 | D49 | ALA Discs 75ug | 100 Discs | MASTDISCS® ID | For presumptive Identification of Haemophilus spp. |
| 19 | D51C | Nitrate Discs | 5 x 50 Discs | MASTDISCS® ID | For presumptive Identification of Nitrate Reductase in anaerobes. |
| 20 | D52C | Extended Spectrum β Lactamase Set | 6 x 50 Discs | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |
| 21 | D55 | SPS Discs 1000ug | 100 Discs | MASTDISCS® ID | For presumptive Identification of P. anaerobius |
| 22 | D57C | Oxidase Discs | 5 x 50 Discs | MASTDISCS® ID | For presumptive Identification of Nitrate Reductase in Pseudomonas spp. |
| 23 | D57 | Oxidase Discs | 100 Discs | MASTDISCS® ID | For presumptive Identification of Pseudomonas spp. |
| 24 | D59 | Nitrocefin Discs (B) | 50 Discs | MASTDISCS® ID | For presumptive Identification of Beta lactamase activity. |
| 25 | D62C | Cefotaxime 30 & Cefotaxime 30/Clavulanic Acid 10 | 6 x 50 Discs | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |
| 26 | D63C | Cefepime 30 & Cefepime 30/Clavulanic Acid 10 | 6 x 50 Discs | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance.in Enterobacterales. |
| 27 | D64C | Ceftazidime 30 & Ceftazidime 30/Clavulanic Acid 10 | 6 x 50 Discs | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |
| 28 | D66C | Cefpodoxime 10 & Cefpodoxime 10/Clavulanic Acid 1 | 6 x 50 Discs | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |



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Group**

| Serial No. | Device ID | Product Description | Pack Size | Brand Name | Intended purpose of the medical device type |
|------------|-----------|--|--------------|------------------|--|
| 29 | D67C | Extended Spectrum β Lactamase Set (CPD10) | 6 X 50 discs | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |
| 30 | D68C | AmpC & ESBL Detection Set | 4 X 50 discs | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |
| 31 | D69C | AmpC Detection Set | 3 X 50 discs | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |
| 32 | D70C | Carbapenemase Detection Set | 4 X 50 discs | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |
| 33 | D71C | CAT ID - Carbapenemase Activity Test (CAT) discs | 5 X 50 discs | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |
| 34 | D72C | MastDiscs® Combi AmpC, ESBL and Carbapenemase Detection Disc Set | 6 X 50 discs | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |
| 35 | D73C | Carba Plus. For the detection of carbapenemase and OXA-48 enzyme production in Enterobacteriaceae. | 5 X 50 discs | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |
| 36 | D74 | MastDiscs® ID Indirect Carbapenemase Test (ICT) | 25 Tests | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |
| 37 | D76C | MastDiscs® Combi ESBL Detection Set | 50 Tests | MASTDISCS® Combi | Combination disc sets for the detection of antibiotic resistance. |
| 38 | STOX | Oxacillin Strips | 50 Strips | MAST® ID | Oxacillin Strips for the detection of MRSA-Antibiotic Susceptibility Testing. |
| 39 | ETO/1 | MAST® ID Intralactam Strips | 25 strips | MAST® ID | A strip test for the rapid detection of β -lactamase. |
| 40 | ETO4 | MAST® ID Oxidase Strips - for the performance of the oxidase reaction | 25 strips | MAST® ID | A strip test for the rapid detection of cytochrome oxidase enzyme (Oxidase) in bacteria. |
| 41 | ETO7 | MAST® ID PYR Strips - for the detection of pyrrolidonyl amino peptidase activity | 25 strips | MAST-ID | A rapid strip test for the detection of pyrrolidonyl amino peptidase activity in streptococci and enterococci. |
| 42 | MIID/XV | MAST® ID XV Mirror ring. MASTRING™ containing X+V factor tips | 50 rings | ID-MASTRING | For the identification of haemophilus spp. |
| 43 | MID8 | MASTRING containing Erythromycin (60ug), Rifampicin (15ug), Colistin Sulphate (10ug), Penicillin G 2 units, Kanamycin (1000ug), Vancomycin (5ug) | 50 rings | ID-MASTRING | For the presumptive identification of Gram negative non-sporing anaerobes. |



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This declaration is valid for the IVD medical devices described below on or after the date hereof, and which bear the CE mark. It is also valid for all IVD medical devices described below which are manufactured by Mast and placed on the market on or after the date hereof by third parties with our consent and which bear the CE mark. All supporting documents relating to this declaration are retained at the manufacturer's premises.

| Product code | Product description | IVD Directive classification | EDMS code |
|-----------------|---|---|--|
| Various (DM---) | MAST® Dehydrated culture media – Powdered product formulations for use in microbial culture media. | Self certification Annex III excluding section 6 | 1401010100, 1401010200, 1403010100 (Codes registered - 24/03/2003) GMDN codes 30630, 30660 |

Standards applied: EN ISO 13485:2016, ISO 9001:2015, EN ISO 14971:2019, EN ISO 18113-1:2011, EN ISO 18113-2:2011, EN ISO 15223-1:2016, EN ISO 15223-2:2010.

Declaration made by Christine Winstanley

Date: 26 May 2022

Christine Winstanley, Quality Assurance and Regulatory Affairs Manager – Mast Group Ltd.

Document valid till: 26th May 2025



European In Vitro Diagnostic Medical Directive 98/79/EC, Annex III – General IVD

EC DECLARATION OF CONFORMITY- Self-Certification (Annex III excluding section 6) – General IVD

Product Names: Mast Dehydrated Culture Media

| Serial No. | Device ID Number | Product Description | Pack Size | EDMS/GMDN code | Brand Name | Intended purpose of the medical device type |
|------------|------------------|--------------------------------------|------------------|-----------------------------------|--|--|
| 1 | DM095D | Baird-Parker Medium | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 2 | DM494D | Buffered Peptone Water | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 3 | DM494E | Buffered Peptone Water | 5Kg | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 4 | DM269D | Buffered Rappaport Vassiliadis Broth | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 5 | DM253D | Burkholderia cepacia Medium | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 6 | DM110A | C.L.E.D. Medium | 10x200ml sachets | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 7 | DM110B | C.L.E.D. Medium | 10x500ml sachets | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 8 | DM110D | C.L.E.D. Medium | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 9 | DM111D | C.L.E.D. with Andrade's Indicator | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 10 | DM111E | C.L.E.D. with Andrade's Indicator | 5Kg | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 11 | DM119E | Cooked Meat Granules | 5Kg | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |



| Serial No. | Device ID Number | Product Description | Pack Size | EMDS/GMDN code | Brand Name | Intended purpose of the medical device type |
|------------|------------------|--|-----------|-----------------------------------|--|--|
| 12 | DM130D | D.C.A. (Hynes) | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 13 | DM215B | D.S.T. Agar (Sulphonamide Antagonist Free) | 10x 500ml | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 14 | DM215D | D.S.T. Agar (Sulphonamide Antagonist Free) | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 15 | DM132D | DNase Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 16 | DM133D | Eosin Methylene Blue Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 17 | DM136D | G.C. Agar Base | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 18 | DM134D | Hektoen Enteric Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 19 | DM134E | Hektoen Enteric Agar | 5Kg | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 20 | DM146D | Kimmig Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 21 | DM137D | Kligler's Iron Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 22 | DM138-1D | Kohn's No 1 Medium | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 23 | DM258D | Legionella BCYE Agar Base | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 24 | DM440D | M.S.R.V. (Salmonella) Medium | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 25 | DM140D | MacConkey Agar (without salt) | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 26 | DM140E | MacConkey Agar (without salt) | 5Kg | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |



| Serial No. | Device ID Number | Product Description | Pack Size | EMDS/GMDN code | Brand Name | Intended purpose of the medical device type |
|------------|------------------|--|------------------|-----------------------------------|--|--|
| 27 | DM141D | MacConkey Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 28 | DM141E | MacConkey Agar | 5Kg | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 29 | DM142D | MacConkey Agar No.2 | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 30 | DM143D | MacConkey Agar No.3 | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 31 | DM143E | MacConkey Agar No.3 | 5Kg | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 32 | DM150D | MacConkey Broth | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 33 | DM160D | Mannitol Salt Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 34 | DM170B | Mueller Hinton Agar | 10x200ml sachets | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 35 | DM170D | Mueller Hinton Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 36 | DM170E | Mueller Hinton Agar | 5Kg | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 37 | DM171D | Mueller Hinton Broth | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 38 | DM171N | Mueller Hinton Broth | 20Kg | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 39 | DM195D | Plate Count Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 40 | DM251D | Preston Blood Free Campylobacter Agar Base | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 41 | DM205D | S.S. Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |



| Serial No. | Device ID Number | Product Description | Pack Size | EMDS/GMDN Code | Brand Name | Intended purpose of the medical device type |
|------------|------------------|--------------------------------|-----------|-----------------------------------|--|--|
| 42 | DM205E | S.S. Agar | 5Kg | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 43 | DM211D | Simmons Citrate Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 44 | DM491D | Sorbitol MacConkey Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 45 | DM218D | T.C.B.S. Cholera Medium | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 46 | D401D | T.C.B.S. Cholera Medium | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 47 | DM219S | Tetrathionate Broth | 460g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 48 | DM221D | Thioglycollate Broth USP | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 49 | DM224D | Triple Sugar Iron Agar (TSI) | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 50 | DM228D | Urea Agar Base | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 51 | DM228S | Urea Solution (40% v/v) | 10 x10ml | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 52 | DM480D | Violet Red Bile (Lactose) Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 53 | DM235D | Wilkins Chalgren Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 54 | DM230D | X.L.D. Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 55 | DM230E | X.L.D. Agar | 5Kg | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |
| 56 | DM496D | Yeast Extract Agar | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |

IVD solutions through partnership



**Mast
Group**

| Serial No. | Device ID Number | Product Description | Pack Size | EMDS/GMDN Code | Brand Name | Intended purpose of the medical device type |
|------------|------------------|---------------------|-----------|-----------------------------------|--|--|
| 57 | DM252D | Yersinia Agar Base | 500g | EDMS - 1401010100 GMDN - 30630 | Dehydrated culture media and accessories | Cultural Media & Supplements - Clinical & Industrial Culture Media |

IVD solutions through partnership

Mast Group



PRODUCT CATALOGUE

2023-2024

Welcome

Welcome to the Mast Group Ltd product catalogue effective from January 1st 2023. The catalogue comprises ordering information on Mast Group Ltd's extensive portfolio of products available internationally and includes details of our revised Custom Manufacturing Policy (Page vi). This states the lead times and minimum order quantities for special order custom manufactured goods.

With an easy to use contents included, the product groups are categorised into application specific sections, and any new additions are highlighted to assist customers in finding products of interest.

Quality

Mast Group Ltd is currently certified to ISO9001:2015 'Quality management systems - Requirements', ISO13485:2016 'Medical devices – Quality management systems – Requirements for regulatory purposes', European Directive 98/79/EC 'on in vitro diagnostic medical devices' for Annex II list B products and for ISO13485:2016 for the Canadian Medical Device Requirements (CMDCAS).



Ethical Statement

Mast Group Ltd operates its business legally and ethically and complies with the British In Vitro Diagnostic Association (BIVDA) Code of Conduct. Mast Group Ltd is also dedicated to ensuring full compliance with the UK Bribery Act 2010, and this policy extends to all business associates, dealings and transactions. For more information go to www.mast-group.com

BIVDA

Website

This Catalogue is available electronically from our website:
www.mast-group.com



Ordering Information | 2023

We are pleased to accept International orders by telephone, post, fax and e-mail.
Please have the following information available when ordering:

1. **A valid order number for an approved Credit Account**
2. **Delivery address**
3. **Invoice address**
4. **Product code, description, packsize and quantity required**

Please direct all orders to:

**Mast Group Ltd
Mast House
Derby Road
Bootle
Merseyside
UK
L20 1EA**

Tel: +44 151 472 1444 Customer Services

Tel: +44 151 933 7277 Main Switchboard

e-mail: orders@mast-group.com

Website: www.mast-group.com

PRICING

Outside the UK Mast Group Ltd sells and distributes products via its Subsidiary Companies in Germany and France and an associate company in South Africa. The rest of the world is serviced by a network of Distributors.

Please contact your nearest Subsidiary or Distributor for pricing information.

Any prices quotes direct from Mast House are ex-works and exclude freight unless otherwise stated in a specific quotation.

Please note VAT at the current rate will be applied to all orders from UK based purchasers. This will also apply to other EU customers unless a VAT number is provided.

Products designated as Hazardous Goods will be subject to an additional handling charge dependent on destination and mode of transport.

RETURNS

Should you need to return any items to Mast Group Ltd, please contact Mast Customer Services as detailed above.

Goods supplied correctly may not be returned without prior written agreement and authorisation number, which may be obtained from Customer Services.

Goods so returned must be consigned carriage paid, and a restocking and handling charge of 15% will be made on all goods returned for credit.

Credit will only be awarded once a full assessment of re-saleable condition has been made.

Goods may not be returned if the packaging has been defaced in any way.

CANCELLATIONS

An order for products available from stock may be cancelled at any time prior to the despatch of the order without incurring any additional charges. Cancellation of an order which has been despatched will incur a 15% restocking fee.

Cancellation of products for Special order will be subject to a charge equivalent to 100% of the value of the Special order products if the order has been processed.

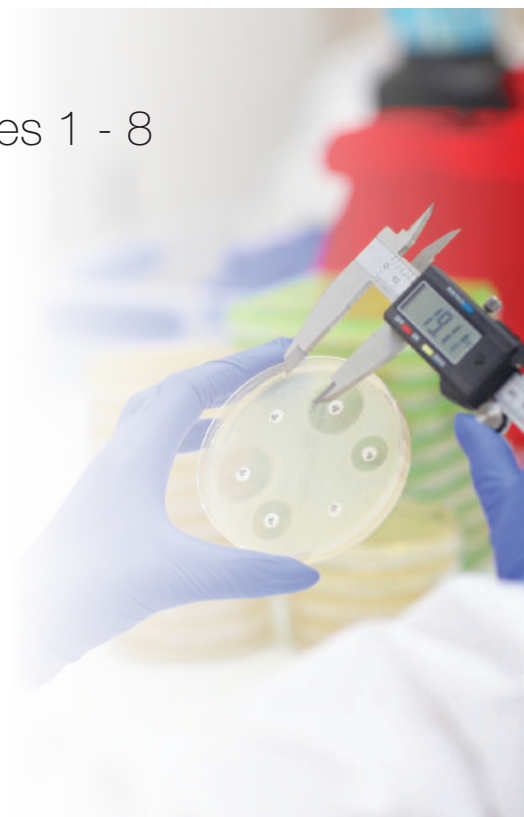
CONDITIONS OF SALE

Mast Group Ltd's standard Terms and Conditions for Supply of Goods and/or Services apply to all transactions. A copy can be found on pages 43-44 of this publication and at www.mast-group.com

Antibiotic Susceptibility Testing | Pages 1 - 8

Mast Group Ltd has been a manufacturer of antibiotic susceptibility test products since 1957, and continues to be at the forefront of developments in this field. Mast Group Ltd's original product was the single antibiotic disc, but the expansion of the portfolio has resulted in the most comprehensive range available worldwide.

MAST® DISCMASTER 5 System
MASTDISCS®
ESβL & AmpC Discs
Carbapenemase discs
Antibiotic Strips
MASTRING-S®
ADATAB®



MAST URI®SYSTEM | Page 9 - 10

The MAST URI®SYSTEM is a group of instrumentation, software and consumables that facilitates the rapid microbiological examination of urine samples to differentiate infected urines from those that are sterile or contaminated. The system will subsequently report bacterial identification and antibiotic susceptibility results on those specimens considered to be significant.

Comprising the MAST URI®PLUS analyser; MAST URI®WELL dispensing aid; MAST URI®PLATES and MAST URI®DOT inoculator with 96 well head and pins, the MAST URI®SYSTEM is designed to deliver results in a fast and cost-effective manner.

MASTURI®PLATES

A standard range of antibiotic and identification media in 96-well microtitre plates for urine screening.



Contents

Culture Media and Supplements | Pages 11 - 16

As a specialist microbiology company, Mast Group Ltd has an extensive range of Dehydrated Culture Media, and selective supplements for the culture, examination, selection, isolation and transport of clinically significant organisms from patient specimens.

Dehydrated Culture Media
MAST® SELECTATAB & MAST® SELECTAVIAL
Selective Supplements
MAST® ID CHROMagar® Candida
REDIPREP® Prepared Egg media



General Products | Page 17

Products for general laboratory use which may also be applicable in disciplines other than microbiology.

MAST® BACTERURITEST
Reliable and inexpensive urine screening method.
CRYOBANK® is a cryogenic storage system for QC organisms.



Identification and Detection | Pages 18 - 29

Mast Group Ltd offers a range of products for identification and detection by a variety of methods, incorporating biochemical tests, latex agglutination, agglutinating antisera and molecular biology based assays.

MAST® ID Biochemical tests and reagents
MAST® Rapid Slide Latex Kits
MAST® ID Identification Strips and Rings
Identification of *Haemophilus* spp.
Identification of *Staphylococcus* spp.
MAST® ID Discs
Detection of ESβL & AmpC
Detection of Carbapenemase
Identification of MRSA
Identification of *Candida* spp.
MAST® ASSURE Bacterial Agglutinating
Antisera

Veterinary | Page 30

A range of products for the detection and identification of veterinary pathogens. This includes Mast Group Ltd's antibiotic susceptibility testing portfolio which offers custom manufacture to specifically address the causative agents of infectious disease in animals.

Eiken SAA Reagents
Toxoplasma Detection
Veterinary Pathogen EIA
Antibiotic Susceptibility Testing
Discs and Rings

Molecular Biology | Page 31

Mast Group Ltd's molecular portfolio offers laboratories the ability to achieve rapid and reliable diagnosis by nucleic acid amplification.

MAST ISOPLEX®

A range of rapid Isothermal nucleic acid amplification tests.



Mast Group Ltd Immunodiagnostic Tests | Pages 32 - 34

Infectious Disease

A range of immunofluorescence (IF), enzyme immunoassay (EIA) and Western Blot products for the identification and detection of a range of infectious organisms.

MASTAFLUOR® Kits, controls, slides and reagents

MASTAZYME® EIA kits

MASTABLOT® Lineblot Assays

MASTABLOT® Western Blot Assays



Mast Group Ltd Immunodiagnostic Tests | Pages 35 - 37

Autoimmune

A range of immunofluorescence (IF) and enzyme immunoassay (EIA) products for the diagnosis of autoimmune disease.

MASTAFLUOR® Kits, controls, slides and reagents

MASTAZYME® EIA kits



Mast Group Ltd Custom Manufacturing Policy

MAST aims to provide customers with a high standard of product quality and customer service, and is an ISO9001 and ISO13485 certified company. Mast has an extensive range of products available from stock. Mast offers a custom manufacturing service to make products to customer specification, with minimum order requirements whilst complying with international regulatory requirements.

All customer requests for a customised product will be coded /NCE and labelled 'Not for clinical diagnostic use'. For veterinary or research use only', unless the antibiotic strengths requested are in line with the current EUCAST/CLSI requirements and the full technical file is available in which case they may be CE marked.

It is important that every customer understands the terms and conditions of this service, a summary of which covering the most popular products is provided in the table below. One important issue is that we specify the minimum order quantity for each type of product and, whilst every attempt is made to achieve this actual number (or a higher quantity if ordered), the nature of the processes involved means the target quantity cannot be guaranteed – our commitment is to supply between 80 and 100% of the quantity ordered. The final quantity may also comprise of more than one batch number. Exceptions may be made for specific tenders if agreed in advance.

Mast Group Ltd. can only manufacture in certain increments above the minimum quantity due to the nature of the manufacturing processes, and this is considered in the pricing.

| Product | Min. order (packs) | Increments (packs) | Optimum (packs) | Lead time (weeks) |
|----------------------------------|--------------------|--------------------|-----------------|-------------------|
| Cartridge discs | 18 | 10 | 98 | 6* |
| Discs in vials | 22 | 25 | 97 | 6* |
| Mastrings (number coded) | Initial order 10 | 10 | 100 | 6* |
| | Subsequent 10 | | | |
| Mastrings (letter coded) | Initial order 20 | 10 | 100 | 6* |
| | Subsequent 10 | | | |
| Adatab | 14 | 15 | 44 | 6* |
| Selectavial/Selectatab | A | A | A | 6* |
| Mast Assure | 1 | 1 | 50 | 8 |
| Media Stock Formulae (5kg packs) | 1 | N.A. | 20 | 6 |
| Media Non-Stock Formulae | 25Kg | N.A. | 75Kg | ~12* |

N.A. = not applicable

* / A see notes below

* Please note 6 weeks lead time refers to new strengths of currently used antibiotics or slight modifications of existing products. For products containing new antibiotics/materials which we have never worked with before, or there is a special cartridge variant, there is an evaluation process and review which has to be performed leading to a minimum 12 week lead time. Pricing will be on application and specific delivery dates will be provided by quotation for such new products.

A Minimum order, increments and optimum quantities for MAST® SELECTAVIAL and MAST® SELECTATAB products are dependent on customer specifications and pack size. Minimum order quantity and prices will be confirmed by quotation

Disc Diffusion Susceptibility Testing

Order No

Product

Packsize

MAST® DISCMASTER 5 DISPENSER

A robust and reliable antimicrobial cartridge disc dispenser designed for use with MAST Antimicrobial Susceptibility Test Cartridges.

| | | |
|------------|--|---|
| MDD65 | MAST® DISCMASTER 5 Dispenser - 6 place | 1 |
| SILICA63 | Silica Gel Capsule For MDD63/MDD64/MDD65 | 1 |
| SHD5 | Single Cartridge Hand Dispenser | 5 |
| CANISTER | MAST® DISCMASTER Canister for MDD64 models and below | 1 |
| CANISTER65 | MAST® DISCMASTER Canister for MDD65 | 1 |

MASTDISCS® AST ANTIBIOTIC SUSCEPTIBILITY DISCS IN CARTRIDGES AND VIALS

MASTDISCS® in Cartridges (5 × 50 discs per pack)


| | | |
|-------------|---|--------------|
| STOCKCART | Stock Susceptibility Cartridge Discs of a single type | 1 pack |
| FUNGART | Stock Antifungal Cartridge Discs of a single type | 1 pack |
| SPECIALCART | Cartridge Discs made to special order* | Min 18 packs |

MASTDISCS® (99+/- 2 discs per vial)

| | | |
|-------------|---|-----------------------|
| STOCKDISC | Stock Susceptibility Discs of a single type | 1 vial |
| SPECIALDISC | Discs made to special order* | Min 22 packs |
| TOOL/C | *Set up charge for Special Discs in vials or cartridges A one off charge for customisation of each new specification | per new specification |

MASTDISCS® AST ANTIBIOTIC SUSCEPTIBILITY DISCS IN CARTRIDGES

STOCK RANGE


| Description Antibiotic & Content µg per disc (unless otherwise stated) | STANDARD | | Order Code Cartridges 5 × 50 discs |
|--|---|--------|--|
| | CLSI | EUCAST | |
| |  | | |
| Amikacin 30 | ✓ | ✓ | AK30C |
| Amoxicillin/clavulanic acid 2-1 | - | ✓ | AUG3C |
| Amoxicillin/clavulanic acid 20-10 | ✓ | ✓ | AUG30C |
| Ampicillin 2 | - | ✓ | AP2C |
| Ampicillin 10 | ✓ | ✓ | AP10C |
| Ampicillin/Sulbactam 10-10 | ✓ | ✓ | SAM20C |
| Azithromycin 15 | ✓ | - | ATH15C |
| Aztreonam 30 | ✓ | ✓ | ATM30C |
| Bacitracin 10 units | - | - | BA10C |
| Cefaclor 30 | ✓ | ✓ | CFC30C |
| Cefadroxil 30 | - | ✓ | CDX30C |
| Cefalexin 30 | - | ✓ | CFX30C |
| Cefalothin 30 | ✓ | - | KF30C |
| Cefazolin 30 | ✓ | - | CZ30C |
| Cefepime 30 | ✓ | ✓ | CPM30C |
| Cefiderocol 30 | ✓ | ✓ | FDC30C |
| Cefixime 5 | ✓ | ✓ | CFM5C |
| Cefotaxime 5 | - | ✓ | CTX5C |
| Cefotaxime 30 | ✓ | - | CTX30C |
| Cefoxitin 30 | ✓ | ✓ | FOX30C |

Disc Diffusion Susceptibility Testing

MASTDISCS[®]AST

ANTIBIOTIC SUSCEPTIBILITY DISCS IN CARTRIDGES

STOCK RANGE


| Description Antibiotic & Content µg per disc (unless otherwise stated) | STANDARD | | Order Code Cartridges 5 × 50 discs |
|--|--------------|---|--|
| | CLSI | EUCAST | |
| | |  | |
| Cefpodoxime 10 | ✓ | ✓ | CPD10C |
| Ceftaroline 5 | - | ✓ | CPT5C |
| Ceftaroline 30 | ✓ | - | CPT30C |
| Ceftazidime 10 | - | ✓ | CAZ10C |
| Ceftazidime 30 | ✓ | - | CAZ30C |
| Ceftazidime/avibactam 10-4 | - | ✓ | CZA14C |
| Ceftazidime/avibactam 30-20 | ✓ | - | CZA50C |
| Ceftibuten 30 | ✓ | ✓ | CFB30C |
| Ceftobiprole 5 | NEW - | ✓ | BPR5C |
| Ceftolozane/tazobactam 30-10 | ✓ | ✓ | C/T40C |
| Ceftriaxone 5 | ✓ | - | CRO5C |
| Ceftriaxone 30 | ✓ | ✓ | CRO30C |
| Cefuroxime 30 | ✓ | ✓ | CXM30C |
| Chloramphenicol 30 | ✓ | ✓ | C30C |
| Ciprofloxacin 5 | ✓ | ✓ | CIP5C |
| Clarithromycin 15 | ✓ | - | CLA15C |
| Clindamycin 2 | ✓ | ✓ | CD2C |
| Delafloxacin 5 | ✓ | - | DLX5C |
| Doripenem 10 | ✓ | ✓ | DOR10C |
| Doxycycline 30 | ✓ | - | DXT30C |
| Eravacycline 20 | ✓ | ✓ | ERV20C |
| Ertapenem 10 | ✓ | ✓ | ETP10C |
| Erythromycin 15 | ✓ | ✓ | E15C |
| Fosfomycin/Glucose-6-Phosphate 200 | ✓ | ✓ | FOT200C |
| Fusidic Acid 10 | - | ✓ | FC10C |
| Gentamicin 10 | ✓ | ✓ | GM10C |
| Gentamicin 30 | - | ✓ | GM30C |
| Gentamicin 120 | ✓ | - | GM120C |
| Imipenem 10 | ✓ | ✓ | IMI10C |
| Imipenem/relebactam 10-25 | ✓ | - | IMR35C |
| Kanamycin 30 | ✓ | - | K30C |
| Lefamulin 20 | ✓ | - | LMU20C |
| Levofloxacin 5 | ✓ | ✓ | LEV5C |
| Linezolid 10 | - | ✓ | LZD10C |
| Linezolid 30 | ✓ | - | LZD30C |
| Mecillinam 10 | ✓ | ✓ | MEC10C |
| Meropenem 10 | ✓ | ✓ | MEM10C |
| Meropenem/Vaborbactam 20-10 | ✓ | ✓ | MEV30C |
| Minocycline 30 | ✓ | - | MN30C |
| Moxifloxacin 5 | ✓ | ✓ | MXF5C |
| Mupirocin 200 | - | ✓ | MUP200C |
| Metronidazole 5 | - | ✓ | MZ5C |
| Nalidixic Acid 30 | ✓ | ✓ | NA30C |
| Neomycin 10 | - | ✓ | NE10C |
| Netilmicon 10 | - | ✓ | NET10C |
| Netilmicin 30 | - | ✓ | NET30C |
| Nitrofurantoin 100 | - | ✓ | NI100C |
| Nitrofurantoin 300 | ✓ | - | NI300C |
| Nitroxoline 30 | - | ✓ | NIB30C |
| Norfloxacin 10 | ✓ | ✓ | NOR10C |
| Novobiocin 5 | - | - | NO5C |
| Ofloxacin 5 | ✓ | ✓ | OFX5C |
| Oxacillin 1 | ✓ | ✓ | OX1C |
| Pefloxacin 5 | - | ✓ | PEF5C |
| Penicillin G 1 unit | - | ✓ | PG1C |
| Penicillin G 10 units | ✓ | - | PG10C |
| Piperacillin 30 | - | ✓ | PRL30C |

Disc Diffusion Susceptibility Testing

MASTDISCS[®] AST


ANTIBIOTIC SUSCEPTIBILITY DISCS IN CARTRIDGES

STOCK RANGE

| Description Antibiotic & Content µg per disc (unless otherwise stated) | STANDARD | | Order Code Cartridges 5 × 50 discs |
|--|----------|---|--|
| | CLSI | EUCAST | |
| | |  | |
| Piperacillin 100 | ✓ | - | PRL100C |
| Piperacillin/tazobactam 30-6 | - | ✓ | PTZ36C |
| Piperacillin/tazobactam 100-10 | ✓ | - | PTZ110C |
| Rifampicin 5 | ✓ | ✓ | RP5C |
| Streptomycin 10 | ✓ | - | S10C |
| Streptomycin 300 | ✓ | ✓ | S300C |
| Tedizolid 2 | ✓ | ✓ | TZD2C |
| Teicoplanin 30 | ✓ | ✓ | TEC30C |
| Temocillin 30 | - | ✓ | TEM30C |
| Tetracycline 30 | ✓ | ✓ | T30C |
| Ticarcillin 75 | ✓ | ✓ | TC75C |
| Ticarcillin/clavulanic acid 75-10 | ✓ | ✓ | TIM85C |
| Tigecycline 15 | ✓ | ✓ | TGC15C |
| Tobramycin 10 | ✓ | ✓ | TN10C |
| Trimethoprim 5 | ✓ | ✓ | TM5C |
| Trimethoprim/sulfamethoxazole 1.25/23.75 | ✓ | ✓ | TS25C |
| Vancomycin 5 | - | ✓ | VA5C |
| Vancomycin 30 | ✓ | - | VA30C |
| Blank discs | - | - | BD0680W/C/NCE |

MASTDISCS[®] AST

ANTIBIOTIC SUSCEPTIBILITY DISCS IN CARTRIDGES - SPECIALIST STOCK RANGE

| Description Antibiotic & Content µg per disc (unless otherwise stated) | STANDARD | | Order Code Cartridges 5 × 50 discs |
|--|----------|---|--|
| | CLSI | EUCAST | |
| | |  | |
| Amoxicillin 25 | - | - | A25C/NCE |
| Carbenicillin 100 | - | ✓ | PY100C |
| Colistin Sulphate | - | - | CO10C/NCE |
| Colistin Sulphate | - | - | CO25C/NCE |
| Polymyxin B 300 | - | - | PB300C/NCE |


SPECIALIST VETERINARY SUSCEPTIBILITY DISCS - STOCK RANGE

| Antibiotic & Strength (unless otherwise stated) | Veterinary Cartridges 5 × 50 discs |
|---|--|
| Cefquinome 30 | CEQ30C/NCE |
| Cefoperazone 30 | CPZ30C/NCE |
| Enrofloxacin 5 | ENF5C/NCE |
| Florenfenicol 30 | FFC30C/NCE |
| Gamithromycin 15 | GAM15C/NCE |
| Marbofloxacin 5 | MAR5C/NCE |
| Neomycin 30 | NE30C/NCE |
| Pradofloxacin 5 | PRA5C/NCE |
| Tildipirison 60 | TIP60C/NCE |
| Tylosin 30 | TY30C/NCE |

Disc Diffusion Susceptibility Testing

MASTDISCS[®] AST

ANTIBIOTIC SUSCEPTIBILITY DISCS IN CARTRIDGES - STOCK RANGE

| Description Antibiotic & Content µg per disc (unless otherwise stated) | STANDARD | | Order Code Vials 99+/- 2 discs |
|--|----------|---|--------------------------------------|
| | CLSI | EUCAST | |
| | |  | |
| Bacitracin 10 | - | - | BA10 |
| Cefpodoxime 10 | ✓ | ✓ | CPD10 |
| Chloramphenicol 30 | ✓ | ✓ | C30 |
| Gentamicin 10 | ✓ | ✓ | GM10 |
| Metronidazole 5 | - | - | MZ5 |
| Nalidixic Acid 30 | ✓ | ✓ | NA30 |
| Oxacillin 1 | ✓ | - | OX1 |
| Penicillin G 1 unit | - | ✓ | PG1 |
| Vancomycin 5 | - | ✓ | VA5 |
| Blank discs | - | - | BD0638W/NCE |

MASTDISCS[®] AST

ANTIFUNGAL SUSCEPTIBILITY DISCS IN CARTRIDGES - STOCK RANGE

| Description Antibiotic & Content µg per disc (unless otherwise stated) | Order Code Cartridges 5 x 50 discs |
|--|--|
| | |
| Amphotericin B 20 | AMB20C/NCE |
| Clotrimazole 10 | CTM10C/NCE |
| Econazole 10 | ECN10C/NCE |
| Fluconazole 10 | FCN10C/NCE |
| Fluconazole 25 | FCN25C/NCE |
| Flucytosine 1 | FY1C/NCE |
| Ketoconazole 10 | KCA10C/NCE |
| Miconazole 10 | MCL10C/NCE |
| Nystatin 100 | NY100C/NCE |

Disc Diffusion Susceptibility Testing

| Order No | Product | Mechanism | Packsizes (tests) |
|----------|---------|-----------|-------------------|
|----------|---------|-----------|-------------------|

MASTDISCS® Combi

COMBINATION DISC SETS FOR THE DETECTION OF ANTIBIOTIC RESISTANCE

| | | | |
|------|--|------------------|-----------|
| D52C | Extended Spectrum β Lactamase Set (CPD 30) | ESBL | 50 tests |
| D62C | Cefotaxime 30 & Cefotaxime 30/Clavulanic Acid 10 | ESBL | 150 tests |
| D63C | Cefepime 30 & Cefepime 30/Clavulanic Acid 10 | ESBL | 150 tests |
| D64C | Ceftazidime 30 & Ceftazidime 30/Clavulanic Acid 10 | ESBL | 150 tests |
| D66C | Cefpodoxime 10 & Cefpodoxime 10/Clavulanic Acid 1 | ESBL | 150 tests |
| D67C | Extended Spectrum β Lactamase Set (CPD10) | ESBL | 50 tests |
| D68C | AmpC & ESBL Detection Set | AmpC/ESBL | 50 tests |
| D69C | AmpC Detection Set | AmpCs | 50 tests |
| D72C | AmpC, ESBL & Carbapenemase Detection Disc Set | AmpC/ESBLs/Carba | 50 tests |
| D73C | MAST® Carba plus | MBL/KPC/OXA | 50 tests |
| D76C | ESBL Detection Set (EUCAST) | ESBL | 50 tests |

Additional carbapenemase screening and identification tests

| | | |
|--------|--|--------------|
| D71C | MAST® CAT-ID - For presumptive identification of carbapenemase production | 250 tests |
| D74 | MAST® ICT - screening test for the detection of carbapenemase production in Enterobacterales, <i>Pseudomonas</i> and <i>Acinetobacter</i> spp. | 25 tests |
| TEM30C | To aid presumptive identification of OXA-48 | 5 × 50 discs |

RAPID CARBAPENEMASE DETECTION

| | | |
|----------|---|----------|
| DNA/LYO5 | Rapid molecular carbapenemase detection in Enterobacterales, <i>Pseudomonas</i> spp. and <i>Acinetobacter</i> spp. | 10 tests |
| PACE-ID | Colorimetric test for the rapid detection of carbapenemase producing <i>Pseudomonas</i> spp., <i>Acinetobacter</i> spp. and Enterobacterales. | 48 tests |

MASTDISCS® AST

LOW CONTENT PENICILLIN DISCS

For detecting the emergence of penicillin resistance. (vials of 99+/- 2 discs or 5 × 50 discs in cartridges)

| | | | |
|------|---------------------------|--------|--------|
| PG1 | Penicillin G (vials) | 1 unit | 1 vial |
| PG1C | Penicillin G (cartridges) | 1 unit | 1 pack |

OXACILLIN STRIPS

| | | |
|------|--|-----------|
| STOX | Oxacillin Strips for the detection of MRSA (this product is a direct replacement for STMT methicillin strips) | 50 Strips |
|------|--|-----------|

Disc Diffusion Susceptibility Testing

MASTRING-S®

The same price applies to 6 and 8 antimicrobial rings.
(100 rings per tin)

Systemic Gram Positive Rings

M13/NCE 8 tips 1 tin 55.23

| | |
|-------------------|--------|
| C Chloramphenicol | 25µg |
| E Erythromycin | 5µg |
| FC Fusidic acid | 10µg |
| OX Oxacillin | 5µg |
| NO Novobiocin | 5µg |
| PG Penicillin G | 1 unit |
| S Streptomycin | 10µg |
| T Tetracycline | 25µg |

M43/NCE 8 tips 1 tin 55.23

| | |
|-----------------------|--------|
| PG Penicillin G | 1 unit |
| CD Clindamycin | 2µg |
| GM Gentamicin | 10µg |
| FC Fusidic acid | 10µg |
| E Erythromycin | 5µg |
| TM Trimethoprim | 1.25µg |
| SMX Sulphamethoxazole | 25µg |
| T Tetracycline | 10µg |

Systemic Gram Negative Rings

M14/NCE 8 tips 1 tin 55.23

| | |
|----------------------|-------|
| AP Ampicillin | 10µg |
| KF Cephalothin | 5µg |
| CO Colistin Sulphate | 25µg |
| GM Gentamicin | 10µg |
| S Streptomycin | 10µg |
| ST Sulphatriad | 200µg |
| T Tetracycline | 25µg |
| TS Cotrimoxazole | 25µg |

Urine Rings

M26/NCE 8 tips 1 tin 55.23

| | |
|----------------------|-------|
| AP Ampicillin | 25µg |
| C Chloramphenicol | 50µg |
| CO Colistin Sulphate | 100µg |
| K Kanamycin | 30µg |
| NA Nalidixic acid | 30µg |
| NI Nitrofurantoin | 50µg |
| S Streptomycin | 25µg |
| T Tetracycline | 100µg |

Special order rings are subject to 4-6 weeks lead time.

| | | |
|---------------------|---|--------------------------|
| TOOL/M | *Set up charge for MASTRING SPECIAL: a one off charge for customisation of each new MASTRING SPECIAL (letter coded) | Per new specification |
| MASTRING SPECIAL | MASTRING-S® to individual specification. Minimum order 10 tins of 100 rings | |

New Specification NUMBER coded MASTRING-S® are subject to an initial minimum order of 10 tins.

New Specification LETTER coded MASTRING-S® are subject to an initial minimum order of 20 tins.

Subsequent orders: minimums of 10 tins.

ADATAB®

For agar dilution antibiotic susceptibility testing. Each tablet for addition to 100ml medium.

STOCK ADATAB®

| | | | |
|-------------|-----------------------------------|--------------------|------------|
| TAB/AK3.2 | AMIKACIN 3.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/A3.2 | AMOXICILLIN 3.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/AP0.8 | AMPICILLIN 0.8mg | 1 tablet per 100ml | 25 tablets |
| TAB/AP3.2 | AMPICILLIN 3.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/AUG3.2 | AMOXICILLIN/CLAVULANIC ACID 3.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/CPD0.1 | CEFPODOXIME 0.1mg | 1 tablet per 100ml | 25 tablets |
| TAB/CTX0.2 | CEFOTAXIME 0.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/CTX1.6 | CEFOTAXIME 1.6mg | 1 tablet per 100ml | 25 tablets |
| TAB/FOX0.4 | CEFOXITIN 0.4mg | 1 tablet per 100ml | 25 tablets |
| TAB/CAZ0.8 | CEFTAZIDIME 0.8mg | 1 tablet per 100ml | 25 tablets |
| TAB/CAZ3.2 | CEFTAZIDIME 3.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/CXM3.2 | CEFUROXIME 3.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/CFX3.2 | CEFALEXIN 3.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/C0.8 | CHLORAMPHENICOL 0.8mg | 1 tablet per 100ml | 25 tablets |
| TAB/CIP0.2 | CIPROFLOXACIN 0.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/CIP0.8 | CIPROFLOXACIN 0.8mg | 1 tablet per 100ml | 25 tablets |
| TAB/CD0.1 | CLINDAMYCIN 0.1mg | 1 tablet per 100ml | 25 tablets |
| TAB/CO0.8 | COLISTIN 0.8mg | 1 tablet per 100ml | 25 tablets |
| TAB/E0.2 | ERYTHROMYCIN 0.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/FOT12.8 | FOSFOMYCIN TROMETAMOL 12.8mg | 1 tablet per 100ml | 25 tablets |
| TAB/FC0.2 | FUSIDIC ACID 0.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/GM0.1 | GENTAMICIN 0.1mg | 1 tablet per 100ml | 25 tablets |
| TAB/GM0.4 | GENTAMICIN 0.4mg | 1 tablet per 100ml | 25 tablets |
| TAB/GM0.8 | GENTAMICIN 0.8mg | 1 tablet per 100ml | 25 tablets |
| TAB/LZD0.4 | LINEZOLID 0.4mg | 1 tablet per 100ml | 25 tablets |
| TAB/MEM0.4 | MEROPENEM 0.4mg | 1 tablet per 100ml | 25 tablets |
| TAB/MEM1.6 | MEROPENEM 1.6mg | 1 tablet per 100ml | 25 tablets |
| TAB/MUP0.4 | MUPIROCIN 0.4mg | 1 tablet per 100ml | 25 tablets |
| TAB/NA3.2 | NALIDIXIC ACID 3.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/NI3.2 | NITROFURANTOIN 3.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/NI6.4 | NITROFURANTOIN 6.4mg | 1 tablet per 100ml | 25 tablets |
| TAB/OX0.1 | OXACILLIN 0.1mg | 1 tablet per 100ml | 25 tablets |
| TAB/OX0.2 | OXACILLIN 0.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/PG0.006 | PENICILLIN G 0.006mg | 1 tablet per 100ml | 25 tablets |
| TAB/PG0.025 | PENICILLIN G 0.025mg | 1 tablet per 100ml | 25 tablets |
| TAB/RP0.006 | RIFAMPICIN 0.006mg | 1 tablet per 100ml | 25 tablets |
| TAB/RP0.2 | RIFAMPICIN 0.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/PTZ0.8 | PIPERACILLIN /TAZOBACTAM 0.8mg | 1 tablet per 100ml | 25 tablets |
| TAB/PTZ1.6 | PIPERACILLIN /TAZOBACTAM 1.6mg | 1 tablet per 100ml | 25 tablets |
| TAB/TEC0.8 | TEICOPLANIN 0.8mg | 1 tablet per 100ml | 25 tablets |
| TAB/T0.4 | TETRACYCLINE 0.4mg | 1 tablet per 100ml | 25 tablets |
| TAB/TN0.2 | TOBRAMYCIN 0.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/TM0.05 | TRIMETHOPRIM 0.05mg | 1 tablet per 100ml | 25 tablets |
| TAB/TM0.2 | TRIMETHOPRIM 0.2mg | 1 tablet per 100ml | 25 tablets |
| TAB/TM0.8 | TRIMETHOPRIM 0.8mg | 1 tablet per 100ml | 25 tablets |
| TAB/VA0.4 | VANCOMYCIN 0.4mg | 1 tablet per 100ml | 25 tablets |

ADATAB®S TO SPECIAL ORDER

Please contact your Mast Technical Representative for special order requests and pricing.
Please also refer to Mast Group Ltd's Custom Manufacturing Policy for more information.

| | | |
|---|--------------------|------------|
| Any ADATAB® may be made to custom manufacture dependent on the characteristics and availability of the antibiotic | 1 tablet per 100ml | 25 tablets |
|---|--------------------|------------|

Multipoint Technology

Order No

Product

Packsize

MAST ID®

MAST ID® Biochemical tests in agar for microbial identification using multipoint inoculation. Each pack contains 10 × 200ml preweighed sachets.

| | | |
|-------------|-----------------------|--------|
| IDM1/A/NCE | Amygdalin Agar | 1 pack |
| IDM25/A/NCE | H ₂ S Agar | 1 pack |
| IDM26/A/NCE | LDC Agar | 1 pack |
| IDM9/A/NCE | Sorbitol Agar | 1 pack |

MAST ID® REAGENTS

| | | |
|--------|---|-----------|
| DM228S | Urea Solution (40% w/v) for use with Urea Agar Base (Multipoint) (DM228D) | 10 × 10ml |
|--------|---|-----------|

MASTURI®DOT

AUTOMATIC MULTIPPOINT INOCULATOR

Subject to a lead time of 8 weeks

| | | |
|---|--|--------|
| SCANURIDOT | Mast Uri®Dot Automatic multipoint inoculator with footswitch and spares N.B. Appropriate equipment sets for 19, 36 or 96 point inoculation must also be ordered separately from the accessories list below. | 1 unit |
| Accessories (must be ordered separately) | | |
| SCANES019 | Equipment set for 19 point inoculation - Stainless steel inoculum pot and head, with 19 x 1.6mm inoculum pins | 1 Set |
| SCANES019N | Equipment set for 19 point inoculation - Stainless steel inoculum pot and head, with 19 x 2.4mm inoculum pins | 1 Set |
| SCANES036 | Equipment set for 36 point inoculation - Stainless steel pot and head, with 36 x 1.6mm inoculum pins | 1 Set |
| SCANES036N | Equipment set for 36 point inoculation - Stainless steel pot and head, with 36 x 2.4mm inoculum pins | 1 Set |
| SCANES096 | Equipment set for 96 point inoculation - stainless steel inoculum head & 96 x 1.6mm pins | 1 Set |
| SCANES096N | Equipment set for 96 point inoculation - stainless steel inoculum head & 96 x 2.4mm pins | 1 Set |
| SCAN 110 | 1.6mm Inoculum pin, stainless steel | 1 |
| SCAN 110N | 2.4mm Inoculum pin, stainless steel | 1 |
| SCAN 111SS | Inoculum head, 19 pin (1.6mm), stainless steel | 1 |
| SCAN 112SS | Inoculum head, 36 pin (1.6mm), stainless steel | 1 |
| SCAN 113SS | Inoculum pot, 19 well, stainless steel | 1 |
| SCAN 114SS | Inoculum pot, 36 well, stainless steel | 1 |
| SCAN 496 | Inoculum head, 96 pin (1.6mm), stainless steel | 1 |
| SCAN 496N | Inoculum head, 96 pin (2.4mm), stainless steel | 1 |
| SCAN 120 | Marker Assembly | 1 |
| SCANURICADDY | Mast Uri®Caddy for sterilisation of pin heads used with the Mast Uri®Dot automatic multipoint inoculator | 1 |

Multipoint Technology

Order No

Product

Packsize

MASTURI[®]SYSTEM

Subject to a lead time of 8 weeks

The Mast **Uri**[®]System is a group of instrumentation, software and consumables that facilitates the rapid microbiological examination of urine samples to differentiate infected urines from those that are sterile or contaminated. The system will subsequently report bacterial identification and antibiotic susceptibility results on those specimens considered to be significant.

Comprising the Mast **Uri**[®]*Plus* analyser; Mast **Uri**[®]*Well* dispensing aid; Mast **Uri**[®]*Plates* and Mast **Uri**[®]*Dot* inoculator with 96 well head and pins, the Mast **Uri**[®]System is designed to deliver results in a fast and cost-effective manner.

Testing is divided into four phases:

Inoculation of urine samples onto Mast **Uri**[®]*Plates*
 18-24 hours incubation
 Next day reading and analysis
 Validation of results

This means that >95% of antibiotic and identification results can be reported the day after receipt

Software Modules and Accessories

| | | |
|----------------|--|-------|
| SCANURIPLUS | Mast Uri [®] <i>Plus</i> Analyser | 1 |
| SCANURIWELL | Mast Uri [®] <i>Well</i> Dispensing aid | 1 |
| SCANURIDOT | Mast Uri [®] <i>Dot</i> Inoculator | 1 |
| URIINTER | Mast Uri [®] <i>Plus</i> Interface Module | 1 |
| URIMAIN | Mast Uri [®] <i>Plus</i> Maintenance contract | 1 |
| SCANURILOCATE | Mast Uri [®] <i>locator</i> orientation marker pin 1.6mm | 1 |
| SCANURILOCATEN | Mast Uri [®] <i>locator</i> orientation marker pin 2.4mm | 1 |
| URILOCATE | Mast Uri [®] <i>Locate</i> reagent | 14 ml |
| SCANURIRACK | Mast Uri [®] <i>Rack</i> storage accessory | 1 |
| SCANURIPREP | Mast Uri [®] <i>Prep</i> (includes Uri [®] <i>Prep</i> tablet and barcode reader) | 1 |
| SCANURICADDY | Mast Uri [®] <i>Caddy</i> for sterilisation of pin heads used with the Mast Uri [®] <i>Dot</i> automatic multipoint inoculator | 1 |

MASTURI[®]PLATES

CONSUMABLES

A standard range of antibiotic and identification media in 96-well microtitre plates for urine screening. Plates manufactured to customer specification depending on Mast's ability to produce.

Antibiotic and identification plates can be combined to constitute individual plate sets according to specific laboratory requirements. Price by quotation.

CLINICAL & INDUSTRIAL CULTURE MEDIA

Stock range pack size 500g unless otherwise stated

| | | |
|------------|--|------------|
| DM100D | Blood Agar Base | |
| DM104D | Brain Heart Infusion Agar | |
| DM106D | Brain Heart Infusion Broth | |
| DM494D | Buffered Peptone Water | |
| DM253D | Burkholderia cepacia Medium | |
| DM470D/NCE | C.E.M.O. Agar | |
| DM110D | C.L.E.D. Medium | |
| DM111D | C.L.E.D. with Andrade's Indicator | |
| DM115D | Columbia Agar | |
| DM130D | D.C.A. (Hynes) | |
| DM132D | DNase Agar | |
| DM133D | Eosin Methylene Blue Agar | |
| DM136D | G.C. Agar Base | |
| DM134D | Hektoen Enteric Agar | |
| DM137D | Kligler's Iron Agar | |
| DM258D | Legionella BCYE Agar Base | |
| DM440D | M.S.R.V. (Salmonella) Medium | |
| DM141D | MacConkey Agar | |
| DM140D | MacConkey Agar (without salt) | |
| DM142D | MacConkey Agar No.2 | |
| DM143D | MacConkey Agar No.3 | |
| DM150D | MacConkey Broth | |
| DM160D | Mannitol Salt Agar | |
| DM170D | Mueller Hinton Agar | |
| DM179D | Nutrient Agar | |
| DM195D | Plate Count Agar | |
| DM251D | Preston Blood Free Campylobacter Agar Base | |
| DM205D | S.S. Agar | |
| DM200D | Sabouraud Dextrose Agar | |
| DM211D | Simmons Citrate Agar | |
| DM218D | T.C.B.S. Cholera Medium | |
| DM219S | Tetrathionate Broth | |
| DM224D | Triple Sugar Iron Agar (TSI) | |
| DM225D | Tryptone Soy Agar | |
| DM226D | Tryptone Soy Broth | |
| DM228D | Urea Agar Base | |
| DM228S | Urea Solution (40% v/v) | 10 x 10 ml |
| DM235D | Wilkins Chalgren Agar | |
| DM230D | X.L.D. Agar | |
| DM252D | Yersinia Agar Base | |

5 Kg packs of media are available to Special order

Please refer to Mast Group Ltd's Custom Manufacturing Policy for more information

Culture Media & Supplements

| Order No | Product | Packsize |
|---|----------------------------------|----------|
| The following products are available to Special Order Lead time 4-6 weeks. Minimum order 1 pack. | | |
| BASIC MEDIA RAW MATERIALS | | |
| RM10A | Agar A | 100g |
| RM10B | Agar A | 500g |
| RM10E | Agar A | 5Kg |
| RM20A | Beef Extract, Neutralised Powder | 100g |
| RM20B | Beef Extract, Neutralised Powder | 500g |
| RM20E | Beef Extract, Neutralised Powder | 5Kg |
| RM25A | Bile Salts | 100g |
| RM25Q | Bile Salts | 250g |
| RM25E | Bile Salts | 5Kg |
| RM30A | Casein Hydrolysate, Acidic | 100g |
| RM30Q | Casein Hydrolysate Acidic | 250g |
| RM30E | Casein Hydrolysate, Acidic | 5Kg |
| RM31A | Casein Hydrolysate, Enzymic | 100g |
| RM31Q | Casein Hydrolysate, Enzymic | 250g |
| RM31E | Casein Hydrolysate, Enzymic | 5Kg |
| RM50A | Peptone, A, Neutralised | 100g |
| RM50Q | Peptone A, Neutralised | 250g |
| RM50E | Peptone, A, Neutralised | 5Kg |
| RM51A | Peptone, B | 100g |
| RM51Q | Peptone B | 250g |
| RM51E | Peptone, B | 5Kg |
| RM52A | Bacteriological Peptone | 100g |
| RM52Q | Bacteriological Peptone | 250g |
| RM52E | Bacteriological Peptone | 5Kg |
| RM60A | Sodium Desoxycholate | 100g |
| RM70A | Yeast Extract | 100g |
| RM70B | Yeast Extract | 500g |
| RM70E | Yeast Extract | 5Kg |
| RM71A | Yeast Extract Special | 100g |
| RM71B | Yeast Extract Special | 500g |
| RM71E | Yeast Extract Special | 5Kg |

Quotations for bulk orders obtainable on request.

Culture Media & Supplements

| Order No | Product | Usage | Packsize |
|----------|---------|-------|----------|
|----------|---------|-------|----------|

SELECTIVE SUPPLEMENTS

MAST® SELECTATAB and MAST® SELECTAVIAL

Lyophilised supplements in tablets and vials for the preparation of selective, differential or enrichment media.

MAST® SELECTATAB, MAST® SELECTAVIAL and 500g packs of media are available from stock.

5Kg packs of media are available to Special order

Please refer to MAST Custom Manufacturing Policy for more information

| | | | |
|--|--|------------------------|------------|
| Anaerobe Isolation | | | |
| MS8A | Neomycin Selectatab | 1 tab per 500ml | 10 tablets |
| SV8 | Neomycin Selectavial | 1 vial per litre | 10 vials |
| SV9 | Nalidixic Acid Selectavial | 1 vial per litre | 10 vials |
| DM115D | Columbia Agar | | 500g |
| Burkholderia cepacia Selection | | | |
| MS22 | Burkholderia cepacia Selectatab | 1 tab per 100ml | 25 tablets |
| SV22 | Burkholderia cepacia Selectavial | 1 vial per 500ml | 10 vials |
| DM253D | Burkholderia cepacia Medium | | 500g |
| Campylobacter Selection | | | |
| MS18 | Camp Selectatab (Preston Blood Free) | 1 tab per 250ml | 25 tablets |
| MS26 | Camp Selectatab (Modified Butzler Medium Virion) | 1 tab per 500ml | 10 tablets |
| DM115D | Columbia Agar | | 500g |
| DM251D | Preston Blood Free Campylobacter Agar Base | | 500g |
| Campylobacter Selective Enrichment | | | |
| SV59 | Campylobacter Selective Supplement (Exeter) | 1 vial per 1.125 litre | 10 vials |
| SV61 | Campylobacter Growth Supplement (FBP) | 1 vial per 1.125 litre | 10 vials |
| C.E.M.O Selection (<i>T. equigenitalis</i>) | | | |
| MS31/NCE | C.E.M.O. 1 Selectatab | 1 tab per 100ml | 25 tablets |
| MS32/NCE | C.E.M.O. 2 Selectatab | 1 tab per 100ml | 25 tablets |
| MS60/NCE | C.E.M.O. Supplement Selectatab | 1 tab per 500ml | 10 tablets |
| DM470D/NCE | C.E.M.O Agar | | 500g |
| E.coli O157 Selection | | | |
| DM491D | Sorbitol MacConkey Agar | | 500g |

Culture Media & Supplements

| Order No | Product | Usage | Packsize |
|----------|--|-----------------------|------------|
| DM494D | E.coli O157 Enrichment Buffered Peptone water | | 500g |
| SV30 | Novobiocin Selectavial | 1 vial per 2.25 litre | 10 vials |
| DM115D | Columbia Agar | | 500g |
| MS15 | Gardnerella Selection Gardnerella Selectatab | 1 tab per 250ml | 25 tablets |
| DM115D | Columbia Agar | | 500g |
| SV5 | G.C. Selection G.C. Selectavial (V.C.T.) | 1 vial per litre | 10 vials |
| SV6 | G.C. Selectavial (V.C.N.T.) | 1 vial per litre | 10 vials |
| SV16 | G.C. Growth Selectavial | 1 vial per litre | 10 vials |
| SV20 | G.C. Selectavial (L.C.A.T.) | 1 vial per litre | 10 vials |
| DM136D | G.C. Agar Base | | 500g |
| MS27 | Haemophilus Selection Haemophilus Selectatab (Bacitracin) | 1 tab per 100ml | 25 tablets |
| SV27 | Haemophilus Selectavial (Bacitracin) | 1 vial per litre | 10 vials |
| SV82 | NAD Selectavial  | 1 vial per litre | 10 vials |
| DM115D | Columbia Agar | | 500g |
| SV36 | Legionella Selection Legionella Selectavial (MWY) | 1 vial per 500ml | 10 vials |
| SV37 | Legionella Selectavial (PNV) | 1 vial per 500ml | 10 vials |
| DM258D | Legionella B.C.Y.E Agar Base | | 500g |
| SV35 | Legionella Enrichment Legionella Growth Supplement (L-CYS) | 1 vial per 500ml | 10 vials |
| DM258D | Legionella B.Y.C.E Agar Base | | 500g |
| SV33 | Listeria Selection Listeria Selectavial (Oxford) Formula | 1 vial per 500ml | 10 vials |
| DM256D | Listeria Selective Agar Base (Oxford) | | 500g |
| SV34 | Listeria Enrichment Listeria Selectavial (Selective Enrichment) | 1 vial per 500ml | 10 vials |
| MS24 | Mycobacteria Selection Mycobacteria Selectatab (Kirchner) | 1 tab per 500mls | 10 tablets |
| SV40 | Sputagest Selectavial | 1 vial per 100ml | 10 vials |
| DM440D | Salmonella Selection M.S.R.V. (Salmonella) Medium | | 500g |
| DM160D | Mannitol Salt Agar | | 500g |

Culture Media & Supplements

| Order No | Product | Usage | Packsize |
|----------|------------------------------------|------------------|------------|
| | Yersinia Selection | | |
| MS19 | Yersinia Selectatab | 1 tab per 250ml | 25 tablets |
| DM252D | Yersinia Agar Base | | 500g |
| | Yeast & Mould Isolation | | |
| SV54 | Chloramphenicol Selectavial | 1 vial per 500ml | 10 vials |
| DM200D | Sabouraud Dextrose Agar | | 500g |
| DM702D | Yeast Glucose Chloramphenicol Agar | | 500g |

Supplements not listed here may be available to Special Order in either
MAST® SELECTATAB or **MAST® SELECTAVIAL** format.
Please refer to **MAST Custom Manufacturing Policy** for more information

MAST® POURITE™

Anti-bubble Agent for Agar Based Media.

| | | | |
|------|----------------|--|------|
| MP1A | MAST® POURITE™ | | 60ml |
|------|----------------|--|------|

Culture Media & Supplements

| Order No | Product | Usage | Packsize |
|----------|---------|-------|----------|
|----------|---------|-------|----------|

SELECTIVE SUPPLEMENTS

MAST® SELECTATAB and MAST® SELECTAVIAL lyophilised supplements in tablets and vials for the preparation of selective, differential or enrichment media.

| | | | |
|----------|--------------------------------------|-------------------------|------------|
| MS22 | Burkholderia cepacia Selectatab | 1 tab per 100ml | 25 tablets |
| SV22 | Burkholderia cepacia Selectavial | 1 vial per 500ml | 10 vials |
| MS31/NCE | C.E.M.O. 1 Selectatab | 1 tab per 100ml | 25 tablets |
| MS32/NCE | C.E.M.O. 2 Selectatab | 1 tab per 100ml | 25 tablets |
| MS60/NCE | C.E.M.O Supplement Selectatab | 1 tab per 500ml | 10 tablets |
| MS26 | Camp Selectatab (Modified Butzler) | 1 tab per 500ml | 10 tablets |
| MS18 | Camp Selectatab (Preston Blood Free) | 1 tab per 250ml | 25 tablets |
| SV61 | Campylobacter Growth Supplement | 1 vial per 1.125 litres | 10 vials |
| SV59 | Campylobacter Selective Supplement | 1 vial per 1.125 litre | 10 vials |
| SV54 | Chloramphenicol Selectavial | 1 vial per 500ml | 10 vials |
| SV16 | G.C. Growth Selectavial | 1 vial per litre | 10 vials |
| SV20 | G.C. Selectavial (L.C.A.T.) | 1 vial per litre | 10 vials |
| SV6 | G.C. Selectavial (V.C.N.T.) | 1 vial per litre | 10 vials |
| SV5 | G.C. Selectavial (V.C.T.) | 1 vial per litre | 10 vials |
| MS15 | Gardnerella Selectatab | 1 tab per 250ml | 25 tablets |
| MS27 | Haemophilus Selectatab (Bacitracin) | 1 tab per 100ml | 25 tablets |
| SV27 | Haemophilus Selectavial (Bacitracin) | 1 vial per litre | 10 vials |
| SV35 | Legionella Growth Supplement (L-CYS) | 1 vial per 500ml | 10 vials |
| SV36 | Legionella Selectavial (MWY) | 1 vial per 500ml | 10 vials |
| SV37 | Legionella Selectavial (PNV) | 1 vial per 500ml | 10 vials |
| MS24 | Mycobacteria Selectatab (Kirchner) | 1 tab per 500ml | 10 tablets |
| SV82 | NAD Selectavial | 1 vial per litre | 10 vials |
| SV9 | Nalidixic Acid Selectavial | 1 vial per litre | 10 vials |
| MS8A | Neomycin Selectatab | 1 tab per 500ml | 10 tablets |
| SV40 | Sputagest Selectavial | 1 vial per 100ml | 10 vials |
| SV8 | Neomycin Selectavial | 1 vial per 100ml | 10 vials |



Supplements not listed here may be available to custom manufacture in either MAST® SELECTATAB or MAST® SELECTAVIAL format. Please refer to MAST Custom Manufacturing Policy for more information

Miscellaneous Laboratory Products

| Order No | Product | Packsize |
|----------|---------|----------|
|----------|---------|----------|

DETECTION OF BACTERIURIA

| | | |
|--------|--|--------|
| BTR1 | MAST® BACTERURITEST Strips (5 × 200 sterile strips/pack) | 1 pack |
| DM110D | C.L.E.D. Medium | 500g |
| DM111D | C.L.E.D. Medium with Andrade's Indicator | 500g |

PRESERVATION & STORAGE OF BACTERIA

CRYOBANK®

Bacterial Preservation and Storage System

| | | |
|------------|---|-------|
| CRYO80/R | 80 vials of red beads | 1 box |
| CRYO80/B | 80 vials of blue beads | 1 box |
| CRYO80/Y | 80 vials of yellow beads | 1 box |
| CRYO80/G | 80 vials of green beads | 1 box |
| CRYO80/M | 80 vials of mixed beads (16 of each colour) | 1 box |
| CRYO80/BOX | Cryobank Box | 1 box |
| CRYO/Z | 18 well CRYOBLOCK | 1 |

Identification Products

| Order No | Product | Packsize |
|--|--|-----------------|
| IDENTIFICATION OF CAMPYLOBACTER SPP. | | |
| CAMP-ID | MAST® ID CAMP IDENTIFICATION SYSTEM A 3 test system for the presumptive identification of thermophilic <i>Campylobacter spp.</i> | 10 tests |
| Available to Special Order. Lead time 6-8 weeks | | |
| LATEX TESTS AND ASSOCIATED PRODUCTS | | |
| RST7001 | MAST Toxoreagent- Toxoplasma test Complete kit for detection of Toxoplasma antibody comprising latex suspension, buffer and positive control serum. | 50 tests |
| RAPID DETECTION OF B-LACTAMASE PRODUCTION | | |
| ETO/1 D59 | MAST® ID Intralactam Strips Nitrocefin Discs | 25 strips 50 |
| MAST® ID IDENTIFICATION STRIPS | | |
| ETO4 | MAST® ID Oxidase Strips - for the performance of the oxidase reaction | 25 strips |
| IDENTIFICATION OF HAEMOPHILUS SPP. | | |
| MID/XV | MAST® ID XV Mirror ring. MASTRING-S® containing X+V factor tips. | 50 rings |
| D43 | X Factor Discs in vials | 100 tests |
| D43C | X Factor Discs in cartridges | 250 tests |
| D44 | V Factor Discs in vials | 100 tests |
| D44C | V Factor Discs in cartridges | 250 tests |
| D45 | X+V Factor Discs in vials | 100 tests |
| D45C | X+V Factor Discs in cartridges | 250 tests |
| DM184D | Peptone Agar | 500g |
| IDENTIFICATION OF NON-SPORING ANAEROBES | | |
| MID8 | MASTRING® for identification of Gram negative non-sporing anaerobes. | 50 rings |
| IDENTIFICATION OF STAPHYLOCOCCUS SPP. | | |
| SV78/3ML | Plasma Coagulase-EDTA | 10 × 3ml |
| SV78/20ML | Plasma Coagulase-EDTA | 6 × 20ml |
| IDENTIFICATION OF MRSA | | |
| RST501 | MAST® ALEX-MRSA Rapid Latex Test for the detection of Methicillin resistant <i>Staphylococcus aureus</i> | 48 Tests |

Identification Products

| Order No | Product | Packsize |
|---|-----------------------------|------------------------------|
| MASTDISCS® IDENTIFICATION DISCS IN VIALS | | |
| | Identification of: | For presumptive |
| D40 | Bacitracin Discs (0.04i.u.) | Group A streptococci |
| D41 | Bacitracin Discs (0.1i.u.) | Group A streptococci |
| D42 | Optochin Discs | <i>Strep. pneumoniae</i> |
| D43 | X Factor Discs | <i>Haemophilus</i> spp. |
| D44 | V Factor Discs | <i>Haemophilus</i> spp. |
| D45 | X+V Factor Discs | <i>Haemophilus</i> spp. |
| D46 | Metronidazole Discs | <i>Gardnerella vaginalis</i> |
| D48 | Lysostaphin Discs | Staphylococci/micrococci |
| D57 | Oxidase Discs | <i>Pseudomonas</i> spp. |
| D59 | Nitrocefin Discs | β lactamase Detection |
| | | Tests/Pack |

| MASTDISCS® ID IDENTIFICATION DISCS IN CARTRIDGES | | |
|---|-----------------------------|--------------------------------|
| | Identification of: | For presumptive |
| D40C | Bacitracin Discs (0.04i.u.) | Group A streptococci |
| D41C | Bacitracin Discs (0.1i.u.) | Group A streptococci |
| D42C | Optochin Discs | <i>Strep.pneumoniae</i> |
| D43C | X Factor Discs | <i>Haemophilus</i> spp. |
| D44C | V Factor Discs | <i>Haemophilus</i> spp. |
| D45C | X+V Factor Discs | <i>Haemophilus</i> spp. |
| D46C | Metronidazole Discs | <i>Gardnerella vaginalis</i> |
| D47C | Sulphathiazole Discs | <i>Gardnerella vaginalis</i> |
| D51C | Nitrate Discs | Nitrate Reductase in anaerobes |
| D57C | Oxidase Discs | <i>Pseudomonas</i> spp. |
| D71C | MAST® CAT-ID | Carbapenemase producers |
| | | Tests/Pack |

MASTDISCS® Combi

COMBINATION DISC SETS FOR THE DETECTION OF ANTIBIOTIC RESISTANCE

| | | | |
|------|--|------------------|-----------|
| D52C | Extended Spectrum β Lactamase Set (CPD 30) | ESBL | 50 tests |
| D62C | Cefotaxime 30 & Cefotaxime 30/Clavulanic Acid 10 | ESBL | 150 tests |
| D63C | Cefepime 30 & Cefepime 30/Clavulanic Acid 10 | ESBL | 150 tests |
| D64C | Ceftazidime 30 & Ceftazidime 30/Clavulanic Acid 10 | ESBL | 150 tests |
| D66C | Cefpodoxime 10 & Cefpodoxime 10/Clavulanic Acid 1 | ESBL | 150 tests |
| D67C | Extended Spectrum β Lactamase Set (CPD10) | ESBL | 50 tests |
| D68C | AmpC & ESBL Detection Set | AmpC/ESBL | 50 tests |
| D69C | AmpC Detection Set | AmpCs | 50 tests |
| D72C | AmpC, ESBL & Carbapenemase Detection Disc Set | AmpC/ESBLs/Carba | 50 tests |
| D73C | MAST® Carba plus | MBL/KPC/OXA | 50 tests |
| D76C | ESBL Detection Set (EUCAST) | ESBL | 50 tests |

Additional carbapenemase screening and identification tests

| | | |
|--------|--|--------------|
| D71C | MAST® CAT-ID - For presumptive identification of carbapenemase production | 250 tests |
| D74 | MAST® ICT - screening test for the detection of carbapenemase production in Enterobacterales, <i>Pseudomonas</i> and <i>Acinetobacter</i> spp. | 25 tests |
| TEM30C | To aid presumptive identification of OXA-48 | 5 × 50 discs |

RAPID CARBAPENEMASE DETECTION

| | | |
|----------|---|----------|
| DNA/LYO5 | Rapid molecular carbapenemase detection in Enterobacterales, <i>Pseudomonas</i> spp. and <i>Acinetobacter</i> spp. | 10 tests |
| PACE-ID | Colorimetric test for the rapid detection of carbapenemase producing <i>Pseudomonas</i> spp., <i>Acinetobacter</i> spp. and Enterobacterales. | 48 tests |

Identification Products

| Order No | Product | Mechanism | Tests/Pack |
|--|---|-----------|------------------------------------|
| IDENTIFICATION OF MRSA | | | |
| STOX (this product is a direct replacement for STMT methicillin strips) | Oxacillin Strips (50 per tin) | | 1 tin |
| MS29 | MRSA (Oxacillin) Selectatab™ | | 25 × 100ml tabs |
| OX1 OX1C | Oxacillin Susceptibility Discs in Vials Oxacillin Susceptibility Discs in Cartridges | | 99+/- 2 discs/vial 5 × 50 discs |
| FOX10 FOX10C | Cefoxitin Susceptibility Discs in Vials Cefoxitin Susceptibility Discs in Cartridges | | 99+/- 2 discs/vial 5 × 50 discs |
| TAB/OX0.2 TAB/FOX0.4 | Oxacillin 0.4 ADATAB® Cefoxitin 0.4 ADATAB® | | 25 × 100ml tabs 25 × 100ml tabs |
| DM160D | Mannitol Salt Agar | | 500g |
| DM170D | Mueller Hinton Agar | | 500g |
| DM115D | Columbia Agar | | 500g |

Bacterial Agglutinating Antisera

Order No

Product

Packsize

MAST[®] ASSURE

E.COLI O ANTISERA - MONOVALENT

Stock items

| | | |
|------------|--------------------------------|-----|
| M12014 | <i>Escherichia coli</i> O26 | 2ml |
| M12017 | <i>Escherichia coli</i> O119 | 2ml |
| M12030 | <i>Escherichia coli</i> O157 | 2ml |
| M12013 | <i>Escherichia coli</i> O1 | 2ml |
| M12020 | <i>Escherichia coli</i> O44 | 2ml |
| M12034 | <i>Escherichia coli</i> O78 | 2ml |
| M12035 | <i>Escherichia coli</i> O148 | 2ml |
| M12036 | <i>Escherichia coli</i> O159 | 2ml |
| M12039 | <i>Escherichia coli</i> O25 | 2ml |
| M12041 | <i>Escherichia coli</i> O153 | 2ml |
| M12043 | <i>Escherichia coli</i> O8 | 2ml |
| M12047 | <i>Escherichia coli</i> O28ac | 2ml |
| M12048 | <i>Escherichia coli</i> O112ac | 2ml |
| M12049 | <i>Escherichia coli</i> O124 | 2ml |
| M12050 | <i>Escherichia coli</i> O136 | 2ml |
| M12051 | <i>Escherichia coli</i> O144 | 2ml |
| M12053 | <i>Escherichia coli</i> O143 | 2ml |
| M12054 | <i>Escherichia coli</i> O152 | 2ml |
| M12055 | <i>Escherichia coli</i> O164 | 2ml |
| M15772/NCE | <i>Escherichia coli</i> O103 | 2ml |
| M15796/NCE | <i>Escherichia coli</i> O145 | 2ml |

E.COLI O ANTISERA MONOVALENT

Lead time 8 weeks

| | | |
|------------|-------------------------------|-------------------|
| M12022 | <i>Escherichia coli</i> O125 | 2ml |
| M12023 | <i>Escherichia coli</i> O126 | 2ml |
| M12025 | <i>Escherichia coli</i> O166 | 2ml |
| M12029 | <i>Escherichia coli</i> O151 | 2ml |
| M12031 | <i>Escherichia coli</i> O158 | 2ml |
| M12045 | <i>Escherichia coli</i> O115 | 2ml |
| M12052 | <i>Escherichia coli</i> O29 | 2ml |
| M12024 | <i>Escherichia coli</i> O146 | 2ml |
| M12033 | <i>Escherichia coli</i> O27 | 2ml |
| M12037 | <i>Escherichia coli</i> O168 | 2ml |
| M12038 | <i>Escherichia coli</i> O20 | 2ml |
| M12040 | <i>Escherichia coli</i> O63 | 2ml |
| M12042 | <i>Escherichia coli</i> O167 | 2ml |
| M12044 | <i>Escherichia coli</i> O15 | 2ml |
| M12046 | <i>Escherichia coli</i> O169 | 2ml |
| M12015 | <i>Escherichia coli</i> O86a | 2ml |
| M12016 | <i>Escherichia coli</i> O111 | 2ml |
| M12018 | <i>Escherichia coli</i> O127a | 2ml |
| M12019 | <i>Escherichia coli</i> O128 | 2ml |
| M12021 | <i>Escherichia coli</i> O55 | 2ml |
| M12026 | <i>Escherichia coli</i> O18 | 2ml |
| M12027 | <i>Escherichia coli</i> O114 | 2ml |
| M12028 | <i>Escherichia coli</i> O142 | 2ml |
| M12032 | <i>Escherichia coli</i> O6 | 2ml |
| M15789/NCE | <i>Escherichia coli</i> O121 | NO CE MARK 2ml |
| M15802/NCE | <i>Escherichia coli</i> O161 | NO CE MARK 2ml |
| M15819/NCE | <i>Escherichia coli</i> O165 | NO CE MARK 2ml |
| M15758/NCE | <i>Escherichia coli</i> O74 | NO CE MARK 2ml |
| M15765/NCE | <i>Escherichia coli</i> O91 | NO CE MARK 2ml |

Bacterial Agglutinating Antisera

Order No

Product

Packsize

MAST[®] ASSURE

ESCHERICHIA COLI O ANTISERA - POLYVALENT

Stock items

| | | |
|--------|--|-----|
| M14263 | <i>Escherichia coli</i> POLY 2 Factors O26, O55, O111, O119, O126 | 2ml |
| M14270 | <i>Escherichia coli</i> POLY 3 Factors O86, O114, O125, O127, O128 | 2ml |
| M14287 | <i>Escherichia coli</i> POLY 4 Factors O44, O112, O124, O142 | 2ml |
| M12005 | <i>Escherichia coli</i> POLY D1 (O1, O26, O86a, O111, O119, O127a, O128) | 2ml |
| M12006 | <i>Escherichia coli</i> POLY D2 (O44, O55, O125, O126, O146, O166) | 2ml |
| M12007 | <i>Escherichia coli</i> POLY D3 (O18, O114, O142, O151, O157, O158) | 2ml |
| M12008 | <i>Escherichia coli</i> POLY D4 (O6, O27, O78, O148, O159, O168) | 2ml |
| M12009 | <i>Escherichia coli</i> POLY D5 (O20, O25, O63, O153, O167) | 2ml |
| M12010 | <i>Escherichia coli</i> POLY D6 (O8, O15, O115, O169) | 2ml |
| M12011 | <i>Escherichia coli</i> POLY D7 (O28ac, O112ac, O124, O136, O144) | 2ml |
| M12012 | <i>Escherichia coli</i> POLY D8 (O29, O143, O152, O164) | 2ml |

ESCHERICHIA COLI O ANTISERA - POLYVALENT

Lead time 8 weeks

| | | | |
|------------|--|------------|-----|
| M15741/NCE | <i>E.coli</i> POLY D9 (O74, O91, O103, O121, O145, O161, O165) | NO CE MARK | 2ml |
|------------|--|------------|-----|

E.COLI H ANTISERA MONOVALENT

Stock items

| | | |
|--------|-----------------------------|-----|
| M12060 | <i>Escherichia coli</i> H-7 | 5ml |
|--------|-----------------------------|-----|

ESCHERICHIA COLI H ANTISERA MONOVALENT

Lead time 8 weeks

| | | |
|--------|---------------------------------|-----|
| M12056 | <i>Escherichia coli</i> H-2 | 5ml |
| M12057 | <i>Escherichia coli</i> H-4 | 5ml |
| M12058 | <i>Escherichia coli</i> H-5 | 5ml |
| M12059 | <i>Escherichia coli</i> H-6 | 5ml |
| M12061 | <i>Escherichia coli</i> H-9 | 5ml |
| M12062 | <i>Escherichia coli</i> H-10 | 5ml |
| M12063 | <i>Escherichia coli</i> H-11 | 5ml |
| M12064 | <i>Escherichia coli</i> H-12 | 5ml |
| M12065 | <i>Escherichia coli</i> H-16 | 5ml |
| M12066 | <i>Escherichia coli</i> H-18 | 5ml |
| M12067 | <i>Escherichia coli</i> H-19 | 5ml |
| M12068 | <i>Escherichia coli</i> H-20 | 5ml |
| M12069 | <i>Escherichia coli</i> H-21 | 5ml |
| M12070 | <i>Escherichia coli</i> As H-27 | 5ml |
| M12071 | <i>Escherichia coli</i> As H-28 | 5ml |
| M12072 | <i>Escherichia coli</i> As H-34 | 5ml |
| M12073 | <i>Escherichia coli</i> As H-40 | 5ml |
| M12074 | <i>Escherichia coli</i> As H-41 | 5ml |
| M12075 | <i>Escherichia coli</i> AS H-42 | 5ml |
| M12076 | <i>Escherichia coli</i> As H-45 | 5ml |
| M12077 | <i>Escherichia coli</i> As H-51 | 5ml |

TOXIGENIC ESCHERICHIA COLI PILI ANTISERA

Lead time 8 weeks

| | | | |
|------------|---|------------|---------|
| M11601/NCE | Toxigenic <i>Escherichia coli</i> Pili Antisera Set This set consists of the following K88, K99 and 987P | NO CE MARK | 5ml × 3 |
| M11602/NCE | <i>Escherichia coli</i> K88 | NO CE MARK | 5ml |
| M11603/NCE | <i>Escherichia coli</i> K99 | NO CE MARK | 5ml |
| M11604/NCE | <i>Escherichia coli</i> 987P | NO CE MARK | 5ml |

Bacterial Agglutinating Antisera

Order No

Product

Packsize

MAST[®] ASSURE

HAEMOPHILUS INFLUENZAE ANTISERA

Lead time 8 weeks

Haemophilus influenzae type listed below

| | | |
|--------|-------------------------------|-----|
| M11302 | Haemophilus influenzae Type a | 2ml |
| M11303 | Haemophilus influenzae Type b | 2ml |
| M11304 | Haemophilus influenzae Type c | 2ml |
| M11305 | Haemophilus influenzae Type d | 2ml |
| M11306 | Haemophilus influenzae Type e | 2ml |
| M11307 | Haemophilus influenzae Type f | 2ml |

SALMONELLA O ANTISERA - MONOVALENT

Stock items

| | | |
|--------|------------------------------|-----|
| M10310 | Salmonella O Factor O 2 | 2ml |
| M10311 | Salmonella O Factor O 4 | 2ml |
| M10321 | Salmonella O Factor O 6,14 | 2ml |
| M10312 | Salmonella O Factor O 7 | 2ml |
| M10313 | Salmonella O Factor O 8 | 2ml |
| M10314 | Salmonella O Factor O 9 | 2ml |
| M10326 | Salmonella O Factor Vi | 2ml |
| M10315 | Salmonella O Factor O9,46 | 2ml |
| M10316 | Salmonella O Factor O1, 3,10 | 2ml |
| M10318 | Salmonella O Factor O1,3,19 | 2ml |
| M10319 | Salmonella O Factor O11 | 2ml |
| M10320 | Salmonella O Factor O13 | 2ml |
| M10323 | Salmonella O Factor O18 | 2ml |
| M10324 | Salmonella O Factor O21 | 2ml |

SALMONELLA O ANTISERA - MONOVALENT

Lead time 8 weeks

| | | | |
|------------|-------------------------|------------|-----|
| M10322 | Salmonella O Factor O16 | | 2ml |
| M92575/NCE | Salmonella O Factor O17 | NO CE MARK | 2ml |
| M92582/NCE | Salmonella O Factor O28 | NO CE MARK | 2ml |
| M10325 | Salmonella O Factor O35 | | 2ml |
| M92599/NCE | Salmonella O Factor O39 | NO CE MARK | 2ml |

SALMONELLA O ANTISERA - POLYVALENT

Stock items

| | | |
|--------|--|-----|
| M10308 | POLY O Factor O2, O4, O7, O8, O9, O9, 46, O3, 10 and O1,3,19 | 2ml |
| M10309 | POLY O1 Factor O11, O13, O6, 14, O16, O18, O21 and O35 | 2ml |
| M14294 | POLY O A-G | 2ml |
| M14300 | POLY O A-S | 2ml |
| M92537 | Omnivalent (Kauffmann-White group A-067) | 2ml |

Bacterial Agglutinating Antisera

Order No

Product

Packsize

MAST[®] ASSURE

SALMONELLA H ANTISERA - MONOVALENT

Stock items

| | | |
|--------|---------------------------------|-----|
| M10327 | <i>Salmonella</i> H Factor a | 2ml |
| M10328 | <i>Salmonella</i> H Factor b | 2ml |
| M10329 | <i>Salmonella</i> H Factor c | 2ml |
| M10330 | <i>Salmonella</i> H Factor d | 2ml |
| M10331 | <i>Salmonella</i> H Factor e, h | 2ml |
| M10332 | <i>Salmonella</i> H Factor G | 2ml |
| M14335 | <i>Salmonella</i> H Factor E | 2ml |
| M10333 | <i>Salmonella</i> H Factor i | 2ml |
| M10344 | <i>Salmonella</i> H Factor 2 | 2ml |
| M10345 | <i>Salmonella</i> H Factor 5 | 2ml |
| M10346 | <i>Salmonella</i> H Factor 6 | 2ml |
| M10364 | <i>Salmonella</i> H Factor f | 2ml |
| M10365 | <i>Salmonella</i> H Factor m | 2ml |
| M10366 | <i>Salmonella</i> H Factor p | 2ml |
| M10367 | <i>Salmonella</i> H Factor q | 2ml |
| M10368 | <i>Salmonella</i> H Factor s | 2ml |
| M10369 | <i>Salmonella</i> H Factor t | 2ml |
| M10335 | <i>Salmonella</i> H Factor L | 2ml |
| M10337 | <i>Salmonella</i> H Factor y | 2ml |
| M10340 | <i>Salmonella</i> H Factor v | 2ml |
| M10341 | <i>Salmonella</i> H Factor w | 2ml |
| M10342 | <i>Salmonella</i> H Factor z13 | 2ml |
| M10343 | <i>Salmonella</i> H Factor z28 | 2ml |
| M10347 | <i>Salmonella</i> H Factor 7 | 2ml |
| M10348 | <i>Salmonella</i> H Factor z6 | 2ml |
| M10370 | <i>Salmonella</i> H Factor u | 2ml |
| M10372 | <i>Salmonella</i> H Factor z23 | 2ml |
| M10373 | <i>Salmonella</i> H Factor z24 | 2ml |
| M10376 | <i>Salmonella</i> H Factor x | 2ml |
| M10377 | <i>Salmonella</i> H Factor a | 2ml |
| M10379 | <i>Salmonella</i> H Factor z4 | 2ml |
| M10334 | <i>Salmonella</i> H Factor k | 2ml |
| M10336 | <i>Salmonella</i> H Factor r | 2ml |

SALMONELLA H ANTISERA - MONOVALENT

Lead time 8 weeks

| | | | |
|------------|---------------------------------|------------|-----|
| M91882/NCE | <i>Salmonella</i> H Factor g, p | NO CE MARK | 5ml |
| M10338 | <i>Salmonella</i> H Factor e, n | | 2ml |
| M10378 | <i>Salmonella</i> H Factor z | | 2ml |
| M10380 | <i>Salmonella</i> H Factor z10 | | 2ml |
| M10374 | <i>Salmonella</i> H Factor z32 | | 2ml |
| M10381 | <i>Salmonella</i> H Factor z29 | | 2ml |

SALMONELLA H ANTISERA - POLYVALENT

Stock items

| | | |
|--------|---------------------------------------|-----|
| M14317 | POLYVALENT PHASE 1 & 2 (a-z29) | 2ml |
| M10339 | POLYVALENT PHASE 2 (H-1) | 2ml |
| M14324 | RAPID DIAGNOSTIC 1 Factors b, d, E, r | 2ml |
| M14331 | RAPID DIAGNOSTIC 2 Factors b, E, k, l | 2ml |
| M14348 | RAPID DIAGNOSTIC 3 Factors d, E, G, k | 2ml |

Bacterial Agglutinating Antisera

Order No

Product

Packsize

MAST® ASSURE

SALMONELLA H GROUP PHASE INDUCTION

Lead time 8 weeks

| | | | |
|------------|---|------------|----------|
| M10361/NCE | <i>Salmonella</i> Phase H 1 | NO CE MARK | 5ml |
| M10352/NCE | <i>Salmonella</i> Phase H d | NO CE MARK | 5ml |
| M10353/NCE | <i>Salmonella</i> Phase H e, h | NO CE MARK | 5ml |
| M10360/NCE | <i>Salmonella</i> Phase H e, n | NO CE MARK | 5ml |
| M10355/NCE | <i>Salmonella</i> Phase H i | NO CE MARK | 5ml |
| M10357/NCE | <i>Salmonella</i> Phase H L | NO CE MARK | 5ml |
| M10358/NCE | <i>Salmonella</i> Phase H r | NO CE MARK | 5ml |
| M10359/NCE | <i>Salmonella</i> Phase H y | NO CE MARK | 5ml |
| M10350/NCE | <i>Salmonella</i> Phase H b | NO CE MARK | 5ml |
| M10356/NCE | <i>Salmonella</i> Phase H k | NO CE MARK | 5ml |
| M10383/NCE | <i>Salmonella</i> Phase H z4 | NO CE MARK | 5ml |
| M10391/NCE | <i>Salmonella</i> Phase Induction Set This set consists of a, b, c, d, eh, G, I, k, L, r, y, en, 1, z, z4, z10, z29 | NO CE MARK | 5ml × 17 |

SHIGELLA ANTISERA - MONOVALENT

Stock items

| | | | |
|--------|-----------------------------|-------------|-----|
| M10116 | <i>Shigella dysenteriae</i> | Type 1 | 2ml |
| M10126 | <i>Shigella flexneri</i> | Type I | 2ml |
| M10127 | <i>Shigella flexneri</i> | Type II | 2ml |
| M10128 | <i>Shigella flexneri</i> | Type III | 2ml |
| M10129 | <i>Shigella flexneri</i> | Type IV | 2ml |
| M10130 | <i>Shigella flexneri</i> | Type V | 2ml |
| M10131 | <i>Shigella flexneri</i> | Type VI | 2ml |
| M10132 | <i>Shigella flexneri</i> | Group (3) 4 | 2ml |
| M10133 | <i>Shigella flexneri</i> | Group 6 | 2ml |
| M10134 | <i>Shigella flexneri</i> | Group 7 (8) | 2ml |
| M10136 | <i>Shigella boydii</i> | Type 2 | 2ml |
| M10150 | <i>Shigella sonnei</i> | Phase I | 2ml |
| M10151 | <i>Shigella sonnei</i> | Phase II | 2ml |
| M10137 | <i>Shigella boydii</i> | Type 3 | 2ml |

Bacterial Agglutinating Antisera

Order No

Product

Packsize

MAST[®] ASSURE

SHIGELLA ANTISERA - MONOVALENT

Lead time 8 weeks

| | | | |
|--------|-----------------------------|---------|-----|
| M10117 | <i>Shigella dysenteriae</i> | Type 2 | 2ml |
| M10119 | <i>Shigella dysenteriae</i> | Type 4 | 2ml |
| M10118 | <i>Shigella dysenteriae</i> | Type 3 | 2ml |
| M10120 | <i>Shigella dysenteriae</i> | Type 5 | 2ml |
| M10121 | <i>Shigella dysenteriae</i> | Type 6 | 2ml |
| M10122 | <i>Shigella dysenteriae</i> | Type 7 | 2ml |
| M10123 | <i>Shigella dysenteriae</i> | Type 8 | 2ml |
| M10124 | <i>Shigella dysenteriae</i> | Type 9 | 2ml |
| M10125 | <i>Shigella dysenteriae</i> | Type 10 | 2ml |
| M10152 | <i>Shigella dysenteriae</i> | Type 11 | 2ml |
| M10153 | <i>Shigella dysenteriae</i> | Type 12 | 2ml |
| M10135 | <i>Shigella boydii</i> | Type 1 | 2ml |
| M10138 | <i>Shigella boydii</i> | Type 4 | 2ml |
| M10139 | <i>Shigella boydii</i> | Type 5 | 2ml |
| M10140 | <i>Shigella boydii</i> | Type 6 | 2ml |
| M10141 | <i>Shigella boydii</i> | Type 7 | 2ml |
| M10142 | <i>Shigella boydii</i> | Type 8 | 2ml |
| M10143 | <i>Shigella boydii</i> | Type 9 | 2ml |
| M10144 | <i>Shigella boydii</i> | Type 10 | 2ml |
| M10145 | <i>Shigella boydii</i> | Type 11 | 2ml |
| M10146 | <i>Shigella boydii</i> | Type 12 | 2ml |
| M10147 | <i>Shigella boydii</i> | Type 13 | 2ml |
| M10148 | <i>Shigella boydii</i> | Type 14 | 2ml |
| M10149 | <i>Shigella boydii</i> | Type 15 | 2ml |
| M10155 | <i>Shigella boydii</i> | Type 16 | 2ml |
| M10156 | <i>Shigella boydii</i> | Type 17 | 2ml |
| M10157 | <i>Shigella boydii</i> | Type 18 | 2ml |

SHIGELLA ANTISERA - POLYVALENT

Stock item

| | | | |
|--------|------------------------------|---|-----|
| M10109 | <i>S.dysenteriae</i> POLY A | Types 1, 2, 3, 4, 5, 6, 7 | 2ml |
| M10110 | <i>S.dysenteriae</i> POLY A1 | Types 8, 9, 10, 11, 12 | 2ml |
| M10111 | <i>S.flexneri</i> POLY B | Types I, II, III, IV, V, VI, Groups (3) 4, 6, 7 (8) | 2ml |
| M10112 | <i>S.boydii</i> POLY C | Types 1, 2, 3, 4, 5, 6, 7 | 2ml |
| M10113 | <i>S.boydii</i> POLY C1 | Types 8, 9, 10, 11 | 2ml |
| M10114 | <i>S.boydii</i> POLY C2 | Types 12, 13, 14, 15 | 2ml |
| M10154 | <i>S.boydii</i> POLY C3 | Types 16, 17, 18 | 2ml |
| M10115 | <i>S.sonnei</i> POLY D | Phase I & II | 2ml |

VIBRIO ANTISERA

Stock items

| | | |
|--------|--|-----|
| M11002 | <i>Vibrio cholerae</i> POLY (INABA, OGAWA) | 2ml |
| M11003 | <i>Vibrio cholerae</i> INABA | 2ml |
| M11004 | <i>Vibrio cholerae</i> OGAWA | 2ml |
| M15001 | <i>Vibrio cholerae</i> O139 (Bengal) | 2ml |

BORDETELLA ANTISERA

Lead time 8 weeks

| | | | |
|------------|--|------------|-----|
| M11501/NCE | BORDETELLA PERTUSSIS ANTISERA This antiserum agglutinates Phase I <i>B.pertussis</i> but does not agglutinate Phase III <i>B.pertussis</i> , <i>B.parapertussis</i> , nor <i>B.bronchiseptica</i> . | NO CE MARK | 2ml |
|------------|--|------------|-----|

Bacterial Agglutinating Antisera

Order No

Product

Packsize

MAST[®] ASSURE

LEGIONELLA ANTISERA

Stock items

| | | | |
|------------|---|------------|-----|
| M11702 | <i>Legionella pneumophila</i> Group. 1 | | 2ml |
| M11703 | <i>Legionella pneumophila</i> Group. 2 | | 2ml |
| M11704 | <i>Legionella pneumophila</i> Group. 3 | | 2ml |
| M11705 | <i>Legionella pneumophila</i> Group. 4 | | 2ml |
| M11706 | <i>Legionella pneumophila</i> Group. 5 | | 2ml |
| M11707 | <i>Legionella pneumophila</i> Group. 6 | | 2ml |
| M15727/NCE | <i>Legionella pneumophila</i> Group. 7 | NO CE MARK | 2ml |
| M15734/NCE | <i>Legionella pneumophila</i> Group. 8 | NO CE MARK | 2ml |
| M93572/NCE | <i>Legionella pneumophila</i> Group. 9 | NO CE MARK | 2ml |
| M93589/NCE | <i>Legionella pneumophila</i> Group. 10 | NO CE MARK | 2ml |
| M93626/NCE | <i>Legionella pneumophila</i> Group. 11 | NO CE MARK | 2ml |
| M93633/NCE | <i>Legionella pneumophila</i> Group. 12 | NO CE MARK | 2ml |
| M93640/NCE | <i>Legionella pneumophila</i> Group. 13 | NO CE MARK | 2ml |
| M93657/NCE | <i>Legionella pneumophila</i> Group. 14 | NO CE MARK | 2ml |
| M93664/NCE | <i>Legionella pneumophila</i> Group. 15 | NO CE MARK | 2ml |
| M11708 | <i>Legionella bozemanii</i> Antisera | | 2ml |
| M11711 | <i>Legionella micdadei</i> Antisera | | 2ml |
| M11710 | <i>Legionella gormanii</i> Antisera | | 2ml |
| M11709 | <i>Legionella dumoffii</i> Antisera | | 2ml |

LISTERIA ANTISERA

Stock items

| | | |
|--------|---------------------------|-----|
| M14379 | Listeria O I/II antiserum | 2ml |
| M14386 | Listeria O I antiserum | 2ml |
| M14393 | Listeria O IV antiserum | 2ml |
| M14409 | Listeria O V/VI antiserum | 2ml |
| M14416 | Listeria O VI antiserum | 2ml |
| M14423 | Listeria O VII antiserum | 2ml |
| M14430 | Listeria O VIII antiserum | 2ml |
| M14447 | Listeria O IX antiserum | 2ml |
| M14454 | Listeria H-A antiserum | 5ml |
| M14461 | Listeria H-AB antiserum | 5ml |
| M14478 | Listeria H-C antiserum | 5ml |
| M14485 | Listeria H-D antiserum | 5ml |

Bacterial Agglutinating Antisera

Order No

Product

Packsize

MAST[®] ASSURE

HAEMOLYTIC STREPTOCOCCUS GROUP-A TYPING ANTISERA

Lead time 8 weeks

| | | | |
|------------|---|------------|-----|
| M10510/NCE | Group-A Strept. Poly T: 1, 3, 13, B3264 | NO CE MARK | 2ml |
| M10511/NCE | Group-A Strept. Poly U: 2,4,6, 28 | NO CE MARK | 2ml |
| M10512/NCE | Group-A Strept. Poly W: 5/27/44, 11, 12 | NO CE MARK | 2ml |
| M10513/NCE | Group-A Strept. Poly X: 8, 14/49, 25, Imp19 | NO CE MARK | 2ml |
| M10514/NCE | Group-A Strept. Poly Y | NO CE MARK | 2ml |
| M10515/NCE | Group-A Strept. T 1 | NO CE MARK | 2ml |
| M10516/NCE | Group-A Strept. T 2 | NO CE MARK | 2ml |
| M10523/NCE | Group-A Strept. T 11 | NO CE MARK | 2ml |
| M10524/NCE | Group-A Strept. T 12 | NO CE MARK | 2ml |
| M10525/NCE | Group-A Strept. T 13 | NO CE MARK | 2ml |
| M10526/NCE | Group-A Strept. T 14/49 | NO CE MARK | 2ml |
| M10527/NCE | Group-A Strept. T 18 | NO CE MARK | 2ml |
| M10528/NCE | Group-A Strept. T 22 | NO CE MARK | 2ml |
| M10529/NCE | Group-A Strept. T 23 | NO CE MARK | 2ml |
| M10530/NCE | Group-A Strept. T 25 | NO CE MARK | 2ml |
| M10531/NCE | Group-A Strept. T 28 | NO CE MARK | 2ml |
| M10517/NCE | Group-A Strept. T 3 | NO CE MARK | 2ml |
| M10518/NCE | Group-A Strept. T 4 | NO CE MARK | 2ml |
| M10519/NCE | Group-A Strept. T 5/27/44 | NO CE MARK | 2ml |
| M10520/NCE | Group-A Strept. T 6 | NO CE MARK | 2ml |
| M10521/NCE | Group-A Strept. T 8 | NO CE MARK | 2ml |
| M10522/NCE | Group-A Strept. T 9 | NO CE MARK | 2ml |
| M10532/NCE | Group-A Strept. T B3264 | NO CE MARK | 2ml |
| M10533/NCE | Group-A Strept. T Imp19 | NO CE MARK | 2ml |

YERSINIA ENTEROCOLITICA O-GROUPING ANTISERA

Stock items

| | | |
|--------|--|-----|
| M11102 | <i>Yersinia enterocolitica</i> Polyvalent Group O1, O2 Mixture | 2ml |
| M11103 | <i>Yersinia enterocolitica</i> Polyvalent Group O3 | 2ml |
| M11104 | <i>Yersinia enterocolitica</i> Polyvalent Group O5 | 2ml |
| M11105 | <i>Yersinia enterocolitica</i> Polyvalent Group O9 | 2ml |
| M11106 | <i>Yersinia enterocolitica</i> Polyvalent Group O8 | 2ml |

Bacterial Agglutinating Antisera

Order No

Product

Packsize

MAST[®] ASSURE

YERSINIA PSEUDOTUBERCULOSIS ANTISERA

Lead time 8 weeks

| | | | |
|------------|---|------------|---------|
| M11801/NCE | <i>Yersinia pseudotuberculosis</i> Grouping Antisera Set This set consists of: Group 1~6 <i>Yersinia pseudotuberculosis</i> Group listed below | No CE Mark | 2ml × 6 |
| M11802/NCE | <i>Yersinia pseudotuberculosis</i> Group 1 | No CE Mark | 2ml |
| M11803/NCE | <i>Yersinia pseudotuberculosis</i> Group 2 | No CE Mark | 2ml |
| M11804/NCE | <i>Yersinia pseudotuberculosis</i> Group 3 | No CE Mark | 2ml |
| M11805/NCE | <i>Yersinia pseudotuberculosis</i> Group 4 | No CE Mark | 2ml |

RDE (II) RECEPTOR DESTROYING ENZYME

| | | |
|--------|---|----------|
| 370013 | RDE (II) Receptor Destroying Enzyme For use in the serodiagnosis test of Influenza virus | 20ml × 5 |
|--------|---|----------|

Veterinary Tests

| Order No | Product | Packsize |
|---|-----------------------------|----------|
| EIKEN TESTS Available from stock | | |
| V-SZ11/NCE | RUO LZ TEST EIKEN SAA | 4 × 20ml |
| V-SZ12/NCE | RUO LZ-SAA Calibrator EIKEN | 6 × 1ml |
| V-SZ13/NCE | RUO QC-SAA L EIKEN | 5 × 2ml |
| V-SZ14/NCE | RUO QC-SAA H EIKEN | 5 × 2ml |
| V-SZ51/NCE | VET-SAA "Eiken" Reagent | |
| | R1 | 2 × 20mL |
| | R2 | 2 × 20mL |
| V-SZ90/NC | VET-SAA Calibrator Set | |
| | Calibrator | 5 × 1mL |
| | Lysis buffer | 1 × 12m |
| V-SZ91/NCE | VET-SAA-QC-Low | |
| | Low Calibrator | 5 × 1mL |
| | Lysis buffer | 1 × 12m |
| V-SZ92/NCE | VET-SAA-QC-High | |
| | High Calibrator | 5 × 1mL |
| | Lysis buffer | 1 × 12m |

MAST VETERINARY PATHOGEN IDENTIFICATION PRODUCTS

| | | |
|---------|---|----------|
| RST7001 | MAST TOXOREAGENT - Toxoplasma test, Complete kit for detection of Toxoplasma antibody comprising latex suspension, buffer and positive control serum. | 50 tests |
|---------|---|----------|

MASTDISCS[®] AST ANTIBIOTIC SUSCEPTIBILITY DISCS IN CARTRIDGES AND VIALS

SPECIALIST VETERINARY SUSCEPTIBILITY DISCS

Antibiotic & Strength µg per disc (unless otherwise stated)

| | | |
|------------|------------------|--------------|
| CEQ30C/NCE | Cefquinome 30 | 5 × 50 discs |
| CPZ30C/NCE | Cefoperazone 30 | 5 × 50 discs |
| ENF5C/NCE | Enrofloxacin 5 | 5 × 50 discs |
| FFC30C/NCE | Florenfenicol 30 | 5 × 50 discs |
| GAM15C/NCE | Gamithromycin 15 | 5 × 50 discs |
| MAR5C/NCE | Marbofloxacin 5 | 5 × 50 discs |
| NE30C/NCE | Neomycin 30 | 5 × 50 discs |
| PRA5C/NCE | Pradofloxacin 5 | 5 × 50 discs |
| TIP60C/NCE | Tildipirison 60 | 5 × 50 discs |
| TY30C/NCE | Tylosin 30 | 5 × 50 discs |

MASTDISCS[®] in Cartridges (5 × 50 discs per pack)

| | | |
|-------------|---|--------------|
| STOCKCART | Stock Susceptibility Cartridge Discs of a single type | 1 pack |
| FUNGCART | Stock Antifungal Cartridge Discs of a single type | 1 pack |
| SPECIALCART | Cartridge Discs made to special order* | Min 18 packs |

MASTDISCS[®] in vials (100 discs per vial)

| | | |
|-------------|---|-----------------------|
| STOCKDISC | Stock Susceptibility Discs of a single type | 1 vial |
| SPECIALDISC | Discs made to special order* | Min 22 packs |
| TOOL/C | *Set up charge for Special Discs in vials or cartridges A one off charge for customisation of each new specification | per new specification |

MASTRING-S[®] (6 or 8 tipped, 100 rings per tin)

| | | |
|----------|--|------------|
| MASTRING | MASTRING-S [®] to individual specification. | 10-19 tins |
| SPECIAL | Minimum order 10 tins of 100 rings | |
| TOOL/M | *Set up charge for MASTRING SPECIAL: a one off charge for customisation of each new letter coded ring | per new |

New Specification NUMBER coded MASTRING-S[®] are subject to an initial minimum order of 10 tins.
New Specification LETTER coded MASTRING-S[®] are subject to an initial minimum order of 20 tins.
Subsequent orders: minimums of 10 tins.

Molecular Biology Tests

| Order No | Product | Packsize |
|----------|---------|----------|
|----------|---------|----------|

MASTISOPLEX®

NUCLEIC ACID DETECTION PRODUCTS

Available to Special Order Lead time 6 weeks

| | | |
|----------|---|-----------|
| DNA/LYO5 | MAST ISOPLEX® CRE ART kit - LAMP kit for molecular detection and characterisation of different strains of Carbapenem-resistant Enterobacterales | 10 tests |
| DNA/LYO1 | MAST ISOPLEX® DNA Lyo kit | 100 tests |
| DNA/LYO2 | MAST ISOPLEX® DNA Lyo Plus kit | 100 tests |
| DNA/LYO3 | MAST ISOPLEX® VTEC kit | 20 tests |
| DNA/LYO4 | MAST ISOPLEX® E.coli O157 kit | 20 tests |

Immunodiagnostic Tests

| Order No | Product | Packsize |
|-----------------------------|-----------------------------|----------|
| EIKEN TESTS | | |
| Available from stock | | |
| V-SZ11/NCE | RUO LZ TEST EIKEN SAA | 4 x 20ml |
| V-SZ12/NCE | RUO LZ-SAA Calibrator EIKEN | 6 x 1ml |
| V-SZ13/NCE | RUO QC-SAA L EIKEN | 5 x 2ml |
| V-SZ14/NCE | RUO QC-SAA H EIKEN | 5 x 2ml |
| V-SZ51/NCE | VET-SAA "Eiken" Reagent | |
| | R1 | 2 x 20mL |
| | R2 | 2 x 20mL |
| V-SZ90/NC | VET-SAA Calibrator Set | |
| | Calibrator | 5 x 1mL |
| | Lysis buffer | 1 x 12m |
| V-SZ91/NCE | VET-SAA-QC-Low | |
| | Low Calibrator | 5 x 1mL |
| | Lysis buffer | 1 x 12m |
| V-SZ92/NCE | VET-SAA-QC-High | |
| | High Calibrator | 5 x 1mL |
| | Lysis buffer | 1 x 12m |

Mast Immunodiagnostic Tests | Infectious Disease

Order No

Product

Packsize

MASTAFLUOR® IMMUNOFLUORESCENCE TESTS

All products available to Special Order - Lead time 2-3 weeks

| | | |
|--------|--|---------------|
| 630522 | FTA-ABS-IgG Treponema pallidum complete test kit | 10 × 10 tests |
| 630525 | FTA-ABS IgM Treponema pallidum complete test kit | 10 × 10 tests |
| 640522 | FTA-ABS Treponema pallidum slides | 10 × 10 wells |
| 620521 | FTA-ABS-Antibodies controls IgG positive | 0.5 ml |
| 620525 | FTA-ABS-Antibodies controls IgM positive | 0.5 ml |
| 636325 | Mumps-IgM-complete test kit | 10 × 5 tests |

Complete test kits contain slides, buffers, controls, mounting medium, conjugate & cover slips

MASTAFLUOR® IMMUNOFLUORESCENCE TESTS

All products available to Special Order - Lead time 2-3 weeks

| | | |
|--------|--|---------------|
| 631181 | Toxoplasma Screen | 10 × 5 tests |
| 631182 | Toxoplasma Screen | 10 × 10 tests |
| 631183 | Toxoplasma-IgG-complete test kit | 10 × 5 tests |
| 641181 | Toxoplasma slides | 10 × 5 wells |
| 641182 | Toxoplasma slides | 10 × 10 wells |
| 621181 | Toxoplasma controls IgG positive | 0.5 ml |
| 636332 | Varicella Zoster-IgG(Herpes Zoster) complete test kit | 10 × 5 tests |
| 626256 | Varicella Zoster (Herpes Zoster) controls IgM positive | 0.5 ml |

Complete test kits contain slides, buffers, controls, mounting medium, conjugate & cover slips

MASTAFLUOR® IF ADDITIONAL REAGENTS

All products available to Special Order- Lead time 2-3 weeks

| | | |
|---|--|--------------|
| Conjugates FITC labeled (ready for use) | | |
| 626291 | Anti-Human IgG | 2.0 ml |
| 626284 | Anti-Human IgG | 3.0 ml |
| 626283 | Anti-Human IgG | 10.0 ml |
| 626292 | Anti-Human IgM (μ-chain) | 2.0 ml |
| 626285 | Anti-Human IgM (μ-chain) | 3.0 ml |
| 626290 | Anti-Human IgG, IgA, IgM | 2.0 ml |
| 626286 | Anti-Human IgG, IgA, IgM | 3.0 ml |
| Other Reagents | | |
| 620100 | IFT Serumdiluent | 2 × 10 ml |
| 626298 | Evans Blue (ready to use) | 3.0 ml |
| 626281SO | Sorbent for FTA-ABS | 2 × 5ml |
| 626280 | Cover Slides (24 × 60 mm) | 100 pc |
| Rheumatic factor IgG absorbent for IgM tests | | |
| 651003 | MASTSORB | 2 ml |
| Chlamydia Antigen | | |
| 695010 | Mastazyme Chlamydia Ag | 12 × 8 tests |
| 695020 | Mastazyme Chlamydia Ag Transport Media | 95 tubes |
| 695030 | Mastazyme Chlamydia Ag Swabs | 100 pc. |

Special prices are available for bulk purchase.

Mast Immunodiagnostic Tests | Infectious Disease

| Order No | Product | Packsize |
|----------|---------|----------|
|----------|---------|----------|

MASTABLOT® LINEBLOT ASSAYS

All products available to Special Order- Lead time 2-3 weeks

A range of highly specific confirmatory tests to detect antibodies against *Treponema pallidum*

| | | |
|---------|--|---------|
| 6653G08 | MASTABLOT TP (<i>Treponema pallidum</i>) IgG | 8 tests |
| 6653M08 | MASTABLOT TP (<i>Treponema pallidum</i>) IgM | 8 tests |

MASTABLOT® WESTERN BLOT ASSAYS

All products available to Special Order- Lead time 2-3 weeks

Antibody detection for *Borrelia burgdorferi*

| | | |
|--------|---|---------|
| 665101 | MASTABLOT <i>Borrelia burgdorferi</i> IgG | 8 tests |
| 665102 | MASTABLOT <i>Borrelia burgdorferi</i> IgM | 8 tests |

MASTAFLUOR® IMMUNOFLUORESCENCE TESTS

All products available to Special Order. Lead time 2-3 weeks.

COMPLETE TEST KITS

contains slides, controls, conjugate, mounting medium and buffer

| | | |
|--------|---------------------------------|---------------|
| | HEp-2-Cells | |
| | Tissue Sections | |
| 606023 | ANA/AMA/ASMA/APCA/LKM | 10 × 10 tests |
| 606080 | ASA/Rabbit Tongue | 10 × 5 tests |
| 606064 | SKMA | 10 × 5 tests |
| | TISSUE SECTIONS | |
| | Single Tissues | |
| | Rabbit Tissue Sections | |
| 616180 | Rabbit Tongue | 10 × 5 wells |
| | Rat Tissue Sections | |
| 616175 | Rat Striated Muscle | 10 × 5 wells |
| | Combined Tissue Sections | |
| | Rat Tissue | |
| 616123 | Rat Liver/-Kidney/-Stomach | 10 × 10 wells |

Mast Immunodiagnostic Tests | Autoimmune

| Order No | Product | Packsize |
|----------|---------|----------|
|----------|---------|----------|

MASTAFLUOR® IF CONTROLS

All products available to Special Order. Lead time 2-3 weeks

| | | |
|--------|--|--------|
| | HEp-2 | |
| 626202 | HEp-2 pos. speckled | 0.5 ml |
| 626203 | HEp-2 pos. nucleolar | 0.5 ml |
| 626204 | HEp-2 pos. centromere | 0.5 ml |
| | Crithidia luciliae | |
| 626210 | nDNA (dsDNA) positive | 0.5 ml |
| | controls | |
| 626220 | ANA/AMA/ASMA/APCA (ASMA-positive) | 0.5 ml |
| 626221 | ANA/AMA/ASMA/APCA (APCA-positive) | 0.5 ml |
| 626215 | ANA/AMA/ASMA/APCA (AMA-positive) | 0.5 ml |
| 626201 | ANA/AMA/ASMA/APCA (ANA-pos. homogeneous) | 0.5 ml |
| 626271 | EmA negative | 0.5 ml |
| 626264 | SKMA positive | 0.5 ml |

MASTAFLUOR® REAGENTS AND BUFFERS

All products available to Special Order. Lead time 2-3 weeks

CONJUGATES

| | | |
|--------|--|---------|
| | Conjugates FITC labeled (ready for use) | |
| 626291 | Anti-Human IgG | 2.0 ml |
| 626284 | Anti-Human IgG | 3.0 ml |
| 626283 | Anti-Human IgG | 10.0 ml |
| 626292 | Anti-Human IgM | 2.0 ml |
| 626285 | Anti-Human IgM | 3.0 ml |
| 626290 | Anti-Human IgG, IgA, IgM | 2.0 ml |
| 626293 | Anti-Human IgA | 2.0 ml |
| 626287 | Anti-Human IgA | 3.0 ml |

OTHER REAGENTS

| | | |
|--------|---|---------|
| 620100 | IFT Serumdiluent | 100 ml |
| 626297 | PBS-buffer (supplied as a powder - reconstitute in 1 litre H ₂ O) | 1 bag |
| 626298 | Evans Blue | 3.0 ml |
| 626280 | Cover Slides (24 × 60 mm) | 100 pc. |
| | Rheumatic factor, IgG absorbent for IgM tests | |
| 651003 | MASTSORB | 2 ml |

Mast Immunodiagnostic Tests | Autoimmune

Order No

Product

Packsizes

MASTAZYME® ENZYME IMMUNOASSAY

All products available to Special Order. Lead time 2-3 weeks

| | | |
|-------------------------------|------------------------------------|--------------|
| ANA | | |
| 732020 | Anti-dsDNA | 12 × 8 tests |
| 733026 | ANA Profile 8 | 12 × 8 tests |
| 733018 | ANA Profile HJS | 12 × 8 tests |
| ENA | | |
| 733023 | Anti-ENA Screen 7 | 12 × 8 tests |
| 733010 | Anti-Jo 1 | 12 × 8 tests |
| 733012 | Anti-Scl-70 | 12 × 8 tests |
| 733013 | Anti-Sm | 12 × 8 tests |
| 733014 | Anti-Sm/RNP | 12 × 8 tests |
| 733015 | Anti-SS-A (Ro) | 12 × 8 tests |
| 733016 | Anti-SS-B (La) | 12 × 8 tests |
| AMA | | |
| 733017 | Anti-Mitochondrial M2 | 12 × 8 tests |
| Thyroid-Autoantibodies | | |
| 731010 | Anti-TG | 12 × 8 tests |
| 731011 | Anti-Thyroid-Peroxidase (Anti-TPO) | 12 × 8 tests |
| ANCA | | |
| 735013 | Anti-Proteinase 3 | 12 × 8 tests |
| 735012 | Anti-Myeloperoxidase | 12 × 8 tests |
| Others | | |
| 733011 | Anti-Rib-P (ribosomal protein) | 12 × 8 tests |

Special prices are available for bulk purchase

Terms and Conditions for Supply of Goods and/or Services

1. INTERPRETATION

- 1.1 In these Terms and Conditions the following words have the following meanings:
"Buyer": means the person(s), firm or company who accepts MAST's written quotation for the sale of the Goods and/or supply of the Services or whose written order for the Goods or Services is accepted by MAST;
"Contract": means any contract between MAST and the Buyer for the sale and purchase of Goods, incorporating these Terms;
"Goods": means any products and, test results and all documents and information arising from services agreed in the Contract to be supplied to the Buyer by MAST (including any part or parts thereof);
"MAST": means Mast Group Limited;
"Services" means the services which MAST is to supply in accordance with these Terms; and Terms, means the standard terms and conditions of sale set out in this document and (unless the context otherwise requires) includes any special terms agreed in writing between the Buyer and MAST pursuant to condition 2.3.
- 1.2 A reference in these Terms to a provision of a statute shall be construed as a reference to that provision as amended, re-enacted or extended at the relevant time.
- 1.3 In these Terms references to the masculine include the feminine and to the singular include the plural and vice versa as the context admits or requires.
- 1.4 In these Terms, the headings will not affect the construction of these Terms.

2. GENERAL

- 2.1 Subject to any variation under condition 2.3, the Contract will be subject to these Terms to the exclusion of all other terms and conditions (including any terms or conditions which the Buyer purports to apply under any purchase order, confirmation of order, specification or other document) and any course of dealing, and the acceptance of the supply of Goods or provision of Services shall be deemed conclusive evidence of the Buyer's acceptance of these Terms.
- 2.2 MAST's employees or agents are not authorised to make any representations concerning the Goods/Services unless confirmed by MAST in accordance with condition 2.3. In entering into the Contract the Buyer acknowledges that it does not rely on any such representations, which are not so confirmed, but nothing in these Terms affect the liability of either party for fraudulent misrepresentation.
- 2.3 Any variation to these Terms and representations about the Goods or Services shall have no effect unless expressly agreed in writing and signed by the Managing Director of MAST.
- 2.4 Any typographical, clerical or other error or omission in any sales literature, quotation, price list, acceptance of offer, invoice or other document or information issued by MAST shall be subject to correction without any liability on the part of MAST.

3. ORDERS AND SPECIFICATIONS

- 3.1 Orders may be made by post, telephone, fax or e-mail and shall be deemed to be in accordance with MAST's custom manufacturing policy as set out in MAST's price list from time to time available at www.mast-group.com. Each order for Goods or Services by the Buyer shall be deemed to be an offer by the Buyer to purchase Goods or Services subject to these conditions. Please order by catalogue number and product description. A Buyer order number is required for every order.
- 3.2 No order submitted by the Customer shall be deemed to be accepted by MAST unless and until confirmed in writing by MAST's authorised representative.
- 3.3 The Buyer shall be responsible to MAST for ensuring the accuracy of the terms of any order including where applicable, catalogue number and any applicable specification or design submitted by the Buyer. Buyer should note the provisions of condition 11.7.
- 3.4 Goods should be used in accordance with the manufacturer's instructions. MAST accepts no liability for the performance of Goods if used outside the manufacturer's instructions or where Goods are found to be faulty yet continue to be used.
- 3.5 MAST does not guarantee results arising from test/research Services provided by MAST will meet Buyer expectations and shall not be liable to the Buyer for such results. Any retesting required as a result of the Buyer providing incorrect or incomplete information or unsuitable material will be the subject of additional charges unless the retest is required solely as a result of MAST gross negligence.
- 3.6 An order for Goods available from stock may be cancelled at any time prior to the despatch of the order without incurring any additional charges. Cancellation of an order which has already been despatched will incur a 15% restocking fee. Goods returned in an unsaleable condition (e.g. damage to or defacing of packaging, contents etc.) or where content has not been kept at the correct temperatures, whether or not performance is affected, will be charged in full. Cancellation of Goods for special order will be subject to a charge equivalent to 100% of the value of the special order Goods, once the order has been entered onto Mast's computer system.
- 3.7 Where an order confirmation is despatched from MAST to the Buyer, the Buyer should confirm the contents and is presumed to have accepted that confirmation as an accurate description of Goods, quantities and prices to be delivered.

4. NEW ACCOUNTS

Prospective customers wishing to open a credit account are requested to furnish two trade references and one banker's reference. Until the opening of a credit account has been confirmed, a remittance should accompany payment effected by cheque, banker's draft or electronic transfer; commencement of the services or production/delivery of the Goods will not be made until cleared funds have been credited to MAST's account. MAST reserves the right to make an additional charge to cover transaction costs in proportion to the costs associated with the chosen method of payment both before and after the references have proved satisfactory.

5. DESCRIPTION

- 5.1 The description of the Goods shall be as set out in MAST's quotation or price list.
- 5.2 All drawings, descriptive matter, specifications and advertising issued by MAST and any descriptions or illustrations contained in MAST's catalogues or brochures are issued or published for the sole purpose of giving an approximate idea of the Goods described in them. They will not form part of the Contract.

6. TERMS OF PAYMENT

- 6.1 Unless otherwise agreed in writing terms of payment shall be net cash due, together with Value Added Tax where applicable, according to the terms printed on the invoice in respect of the Goods. Payment of the price shall be due within thirty (30) days of date of the invoice, unless otherwise agreed in writing.
- 6.2 Time for payment shall be of the essence.
- 6.3 MAST may submit its invoice either with its delivery note or as requested.
- 6.4 Invoices may be raised prior to Services being undertaken or dispatch of Goods for new accounts or in accordance with condition 6.5 as otherwise required by MAST.
- 6.5 Invoices may be raised in respect of a particular batch, consignment or part orders being delivered. MAST reserves the right to require payment in advance where the Buyer has a previous history of late payment or in the opinion of MAST represents a credit risk.
- 6.6 The Buyer shall make all payments due under the Contract without any deduction whether by way of set-off, counterclaim, discount, abatement or otherwise unless the Buyer has a valid court order requiring an amount equal to such deduction to be paid by MAST to the Buyer.
- 6.7 Where the Contract is to be or may be fulfilled in separate deliveries or instalments payment for each such delivery or instalment will be as if the same constituted a separate Contract.
- 6.8 If the Buyer fails to make any payment on the due date then, without limiting any other right or remedy available to MAST, MAST may:
- (a) cancel the Contract or suspend any further deliveries/Services to the Buyer;
 - (b) appropriate any payment made by the Buyer to such of the Goods or Services (or the goods/services supplied under any other Contract between the Buyer and MAST) as MAST may think fit (notwithstanding any purported appropriation by the Buyer);
 - (c) withhold and/or offset amounts due from MAST to the Buyer under any other contract against amounts due from the Buyer to MAST (notwithstanding any terms of the Buyer to the contrary); and
 - (d) charge interest on amounts outstanding beyond the time specified in condition 6.1. The rate of interest shall be 5% per annum over the National Westminster Bank plc base-lending rate accruing on a daily basis from the payment due date and compounded quarterly. MAST may exercise this right in addition to any other rights it may have in respect of the Goods, Services or the non-payment, until payment in full is made (a part of a month being treated as a full month for the purpose of calculating interest). The parties agree that this constitutes a substantial remedy in terms of the Late Payment of Commercial Debts (Interest) Act 1998.
- 6.9 MAST may withdraw credit facilities at any time and without notice.

7. PRICES

- 7.1 Unless otherwise agreed in writing, all orders are executed subject to prices and any relevant discounts running at the date of despatch. Any price list of MAST whether published or not shall not affect the right of MAST to charge for Goods in accordance with this condition 7.
- 7.2 Prices quoted in a particular currency shall be invoiced and payable in that currency. The Buyer will be liable to MAST for any shortfall in the price payable or loss arising including conversion costs) from payment being received in a different currency or which is converted on receipt.
- 7.3 All prices unless otherwise stated are ex-works (Incoterms 2010) and exclusive of Value Added Tax.
- 7.4 Where any form of international delivery is agreed, the Buyer shall remain liable for any customs or excise duties or tariffs imposed on export or import whether or not such duties were known to the parties at the time of contract.
- 7.5 Any special negotiated prices will only be applied if MAST has received written acceptance of a quotation or the order states a valid quote reference. If no acceptance has been received list prices will be applied. Quotations, unless specifically stated otherwise shall remain valid for ninety (90) days from the date of the quotation, unless earlier withdrawn or varied by MAST.
- 7.6 Special prices for volume breaks apply to individual orders received on the same day for planned delivery as one order and are not cumulative. Special prices for volume breaks will similarly not apply when the order is planned to be delivered on more than one delivery date.
- 7.7 MAST reserves the right to adjust quoted prices if the Buyer does not fulfil its obligation of purchasing the required quantities indicated in the quotation.
- 7.8 MAST reserves the right, by giving written notice to the Buyer at any time before delivery of the Goods or provision of the Services, to increase the price of the Goods/Services to reflect any increase in the cost to MAST which is due to any factor beyond the control of MAST (such as, without limitation, any foreign exchange fluctuation, currency regulation, alteration or introduction of duties or tariffs, significant increase in the costs of labour, materials or other costs of manufacture (utilities)), any change in delivery dates, quantities or specifications for the Goods/Services which is requested by the Buyer, or any delay caused by any instructions of the Buyer or failure of the Buyer to give MAST adequate information or instructions.
- 7.9 If, by mistake, MAST has under priced any Goods, it will not be liable to supply those Goods to the Buyer at the stated price, provided that it notifies the Buyer before despatch of the Goods. In those circumstances, MAST will notify the correct price to the Buyer so the Buyer can decide whether or not it wishes to order the Goods at that price.

8. CARRIAGE AND DELIVERY

- 8.1 Unless otherwise agreed, prices quoted exclude delivery and insurance charges. Where any alternative arrangement is agreed in writing by MAST, the Buyer shall be liable to pay MAST charges for transport, packaging, insurance, duties and tariffs and other costs where applicable.
- 8.2 An order comprising both stock and specially manufactured Goods will be subject to separate charges for each delivery.
- 8.3 Any dates quoted for delivery of the Goods or provision of the Services are approximate only and MAST shall not be liable for a delay however caused. Any dates specified for delivery of the Goods are intended to be an estimate only and time for delivery shall not be made "of the essence". If no dates are so specified, delivery will be in a reasonable time. The Goods may be delivered/Services performed by MAST in advance of the quoted delivery date on giving reasonable notice to the Buyer.
- 8.4 Where the Goods are to be delivered in instalments, or Service to be carried out in phases, each delivery date or phase completion shall constitute a separate Contract and failure by MAST to deliver or complete any one or more of the instalments in accordance with these Terms or any claim by the Buyer in respect of any one or more instalments shall not entitle the Buyer to treat the Contract as a whole as repudiated.
- 8.5 Where delivery of the Goods is to be made to the Buyer's specified address, the Buyer shall make all arrangements necessary to take delivery of the Goods (including offloading) whenever they are tendered for delivery. The Buyer shall be liable, on a full indemnity basis, for any costs incurred by MAST, arising from undelivered Goods being returned, stored and re-delivered.
- 8.6 A handling charge will apply on all orders in the UK mainland. An additional charge applies to Northern Ireland, and the Isle of Man, and the Scottish Islands. MAST reserves the right to apply a small order supplement. Products designated as "Hazardous Goods" will be shipped separately and subject to an additional charge per delivery. Any such charges shall be published on MAST's website from time to time, or otherwise notified to the Buyer.

9. RISK AND TITLE

- 9.1 The Goods shall be at the Buyer's risk as from delivery (including any attempted delivery by MAST).
- 9.2 Title in the results from the provision of any research or test Service shall belong to the Buyer but all other intellectual property rights, including know how, in how those results are achieved will remain with MAST and the Buyer shall not be entitled to such information or to any licence to use such intellectual property or know how.
- 9.3 Where any Goods require the use of integral software, such Goods are provided with a licence to use such software for the life of the Goods and subject to any specific restrictions on such use. The Buyer solely shall be liable for ensuring interfacing with its own software and that of the Goods. Title to software will remain with MAST. The Buyer shall be responsible for maintaining software security, regardless of whether it uses its own security software or that issued by the manufacturer, and shall install all software updates when issued by the manufacturer and otherwise maintain security in keeping with good industry practice.
- 9.4 MAST and the Buyer expressly agree that, in spite of delivery having been made, property in the Goods shall not pass from MAST until the Buyer shall have paid the invoice in full and no other sums whatsoever shall be due from the Buyer to MAST.
- 9.5 Until property in the Goods passes to the Buyer in accordance with condition 8.2 the Buyer shall hold the Goods as bailee for MAST. The Buyer shall store the Goods in accordance with MAST's instructions (at no cost to MAST) and good industry practice separately from all other goods in its possession and so that they are clearly identified as MAST's property.
- 9.6 Notwithstanding that the Goods (or any part thereof) remain the property of MAST, the Buyer has the right to dispose of the Goods or such other products in the normal course of its business for the account of MAST and to pass title to the Goods or products to his customer being a bona fide purchaser for value without notice of MAST's rights. Any such dealings shall be a sale or use of MAST's property by the Buyer on the Buyer's own behalf and the Buyer shall deal as principal when making such sales or dealings. MAST shall be entitled to recover the invoice value notwithstanding the property and any of the Goods have not passed from MAST.
- 9.7 Until such time as property in the Goods passes from MAST the Buyer shall upon request deliver up such of the Goods that are still in existence or resold to MAST. If the Buyer fails to do so MAST or its appointed representative may enter the premises owned, occupied or controlled by the Buyer where the Goods are situated and repossess the Goods. On the making of such request the rights of the Buyer under condition 9.6 shall cease.
- 9.8 The Buyer shall insure and keep insured the goods to their full value against "all risks" to the reasonable satisfaction of MAST until the date that property in the Goods passes from MAST and indemnifies MAST against any cost claim or loss howsoever suffered or incurred.

Continued

10. DAMAGE IN TRANSIT AND SHORTAGES

- 10.1 MAST will, when the price quoted includes delivery, repair or replace free of charge goods damaged in transit provided that the Buyer adheres to the provisions of this condition 10. The obligation to repair or replace, shall be MAST's entire liability for shortfall, faulty, damaged or undelivered Goods.
- 10.2 It is the Buyer's responsibility to inspect the Goods on receipt and to report to the delivery driver and to MAST promptly any damage to, or shortfall in the Goods which is apparent from reasonable inspection. Where appropriate, photo evidence should be taken and provided to MAST upon request. Goods received in a damaged or unsatisfactory condition must be signed for as such and must not be used.
- 10.3 The Buyer shall be deemed to have accepted the Goods three (3) days after delivery to the Buyer and after acceptance, the Buyer shall not be entitled to reject Goods which are not in accordance with the Contract.
- 10.4 MAST shall be entitled on reasonable notice to the Buyer to arrange an inspection of any damaged Goods at the Buyers premises and the Buyer shall afford the inspector all reasonable assistance.
- 10.5 Goods should not be returned to MAST without a valid returns material authorisation number. If authorisation is received the Buyer shall return goods, packaging and a copy of the delivery note. Goods must be returned in accordance with manufacturer instructions and good industry practice.
- 10.6 Any liability of MAST for non-delivery of the Goods shall be limited to replacing the Goods within a reasonable time or issuing a credit note at the pro rata Contract rate against any invoice raised for such Goods.

11. WARRANTY

- 11.1 MAST warrants that subject to the other provisions of these Conditions upon delivery, the Goods will comply with the written specification and on provision of the Services, the Services shall have been undertaken in accordance with any Statement of Works.
- 11.2 MAST shall not be liable for any breach of the warranty in condition 11.1 unless:
- (a) the Buyer gives written notice of the defect to MAST and (if the defect is as a result of damage in transit) to the carrier within 3 days of the time when the Buyer discovers or ought reasonably to have discovered the defect; or in respect of services, MAST has failed to comply with the Statement of Works;
- (b) MAST is given a reasonable opportunity after receiving notice of examining such Goods at the Buyers premises or the Buyer (if asked to do so by MAST) returns such Goods and products of any Services to MAST's place of business at the Buyer's cost for such examination to take place.
- 11.3 MAST shall not be liable for a breach of warranty if:
- (a) the Buyer makes any further use of the Goods after giving such notice; or
- (b) the defect arises because the Buyer failed to follow MAST's oral or written instructions as to the storage, installation, commissioning, use or maintenance of the Goods or (if there are none) good industry practice; or
- (c) the Buyer alters or repairs such Goods without the written consent of MAST.
- 11.4 Subject to conditions 11.2 and 11.3, if any of the Services do not conform with the warranty contained in condition 11.1 as a result of MAST's default, MAST may at its entire discretion re-perform Services which do not conform to condition 11.1.
- 11.5 Subject to conditions 11.2 and 11.3, if any of the Goods do not conform with the warranty in condition 11.1, MAST shall at its option repair or replace such Goods (or the defective part) provided that the Buyer shall return the Goods (or the defective part), if MAST so requests, to MAST at the Buyer's expense.
- 11.6 Where MAST re-performs the services or repairs or replaces the defective Goods, MAST shall have no further liability for a breach of warranty in condition 11.1 in respect of such Goods or Services.
- 11.7 The Buyer warrants and represents that where Goods are made to Buyer's design or specification, or where the Buyer provides material from which MAST is to work, the Buyer holds all necessary rights and licenses to authorise MAST to produce the Goods using such specification or materials. The Buyer will indemnify and keep indemnified MAST on demand against all costs claims and liabilities arising out of any third party claim that in producing the Goods MAST has infringed a third party's intellectual property rights.

12. LIMITATION OF LIABILITY

- 12.1 Subject to condition 11, the following provisions set out the entire financial liability of MAST (including any liability for the acts or omissions of its employees, agents and sub-contractors) to the Buyer in respect of:
- (a) any breach of these Terms; and
- (b) any representation, statement or tortious act or omission including negligence arising under or in connection with the Contract.
- 12.2 All warranties, conditions and other terms implied by statute or common law (save for the conditions implied by section 12 of the Sale of Goods Act 1979) are, to the fullest extent permitted by law, excluded from the Contract.
- 12.3 Nothing in these Terms excludes or limits the liability of MAST for death or personal injury caused by MAST's negligence or for fraudulent misrepresentation.
- 12.4 Subject to conditions 12.2 and 12.3 MAST's total liability in contract, tort (including negligence or breach of statutory duty), misrepresentation, restitution or otherwise, arising in connection with the performance or contemplated performance of the Contract shall be limited to the refund of the price of the Goods and Services plus up to ten percent (10%) of the price.
- 12.5 MAST shall not be liable to the Buyer for any pure economic loss, loss of profit, loss of business opportunity, depletion of goodwill or otherwise, in each case whether direct, indirect or consequential, or any claims for consequential compensation whatsoever (howsoever caused) which arise out of or in connection with the Contract.
- 12.6 MAST shall not be liable for any loss or liability arising from virus, Trojans, ransomware, malware, scanners, spyware or other similar attacks on equipment or software.

13. CONFIDENTIALITY AND DATA PROTECTION

- 13.1 A party (Receiving Party) shall keep in strict confidence all technical or commercial know-how, specifications, inventions, processes or initiatives which are of a confidential nature and have been disclosed to the Receiving Party by the other party (Disclosing Party), its employees, agents or subcontractors, and any other confidential information concerning the Disclosing Party's business or its products or its services which the Receiving Party may obtain. The Receiving Party shall restrict disclosure of such confidential information to such of its employees, agents or subcontractors as need to know it for the purpose of discharging the Receiving Party's obligations under the Contract, and shall ensure that such employees, agents or subcontractors are subject to obligations of confidentiality corresponding to those which bind the Receiving Party. This condition 13 shall survive termination of the Contract.
- 13.2 The Buyer may not without the prior written approval of MAST issue or cause to be issued any press release or publish any journal publication or notice regarding the Products, or details relating to the supply by MAST to the Buyer.
- 13.3 The Buyer hereby warrants and represents that it has and where applicable for future persons involved in the purchase of MAST Goods or Services, will obtain written consent from such persons whose personal details are provided to (or independently obtained by) MAST for the purposes of this supply of Goods or Services (including all officers, employees, agents and contractors of Buyer) "Buyer Personnel" that allows MAST to hold and process "Personal Data" (as defined in applicable data protection Law), relating to such Buyer Personnel, anywhere in the world, both manually and electronically, for all purposes relating to:
- (a) the supply of the Goods and/or performance of the Services;
- (b) administering and managing the business activities of MAST; and
- (c) compliance with applicable policies and procedures and laws, rules and regulations.
- 13.4 Where personal data is supplied solely for the purpose of fulfilment of the contract, the parties shall rely on "legitimate purpose" in order to hold personal data relating to individuals involved in the contract.
- 13.5 Subject to condition 13.4, MAST shall only hold Personal Data for the limited purpose of the supply (and any continuing supplies), and for so long as is reasonably necessary. MAST may share such personal Data with its officers and employees who have a need to know the Personal Data for the performance of the contract but shall not otherwise share the Personal Data with any third parties.
- 13.6 MAST hereby confirms that any provision by MAST of any officer and employees Personal Data is obtained and provided in compliance with the terms of the applicable data protection Law.
- 13.7 MAST's full Privacy and Data Protection Policy, which is hereby incorporated, is available at www.mast-group.com.

14. TERMINATION

- 14.1 MAST shall be entitled to cancel the Contract or suspend any further deliveries under the Contract without any liability to the Buyer if any of the following occur (without prejudice to any other right or remedy available to MAST):
- (a) the Buyer being in material breach of an obligation under the Contract (including an obligation to make payment) which (if capable of remedy) it fails to remedy within 30 days starting on the day after receipt of notice from MAST giving particulars of the breach;
- (b) the Buyer passing a resolution for its winding-up or a court of competent jurisdiction making an order for the Buyer's winding-up or dissolution;
- (c) the making of an administration order in relation to the Buyer or the appointment of a receiver over, or the taking possession or sale by an encumbrance taking possession of or selling an asset of the Buyer; or
- (d) the Buyer making an arrangement or composition with its creditors generally or making an application to a court of competent jurisdiction for protection from its creditors generally; or
- (e) the buyer being unable to pay its debts as they fall due.
- 14.2 If MAST cancels or suspends any further deliveries under the Contract under condition 14.1 and if the Goods have been delivered but not paid for the price shall become immediately due and payable regardless of previous agreement or arrangement to the contrary.

15. FORCE MAJEURE

MAST reserves the right to defer the delivery or to cancel the Contract or reduce the volume of the Goods ordered, or Services requested by the Buyer (without liability to the Buyer) if it is prevented from or delayed in the carrying on of its business due to circumstances beyond the reasonable control of MAST.

16. MISCELLANEOUS

- 16.1 Each right or remedy of MAST under the Contract is without prejudice to any other right or remedy of MAST whether under the Contract or not.
- 16.2 If any provision of the Contract is found by any court, tribunal or administrative body of competent jurisdiction to be wholly or partly illegal, invalid, void, voidable, unenforceable or unreasonable it shall to the extent of such illegality, invalidity, voidness, voidability, unenforceability or unreasonableness be deemed severable and the remaining provisions of the Contract and the remainder of such provision shall continue in full force and effect.
- 16.3 Failure to delay by MAST in enforcing any provision of the Contract will not be construed as a waiver of any of its rights under the Contract.
- 16.4 Any waiver by MAST of any breach of, or any default under, any provision of the Contract by the Buyer will not be deemed a waiver of any subsequent breach or default and will in no way affect the other terms of the Contract.
- 16.5 The parties to this Contract do not intend that any term of this Contract will be enforceable by virtue of the Contracts (Rights of Third Parties) Act 1999 by any person that is not a party to it.
- 16.6 The formation, existence, construction, performance, validity and all aspects of the Contract shall be governed by English law and the parties submit to the exclusive jurisdiction of the English courts.



**Mast
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IVD solutions through partnership



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MAST® CARBA PAcE

Intended Use

PACE-ID. For the rapid detection of carbapenemase producing Enterobacterales, *Pseudomonas*, OXA 48 and 23-like enzyme production in *Acinetobacter*.

FOR IN VITRO DIAGNOSTIC USE ONLY

Contents

- **Vial PEL.** Freeze dried pellet* - 4 vials containing inhibitors and lysis components, each designed for 12 tests.
- **Vial RB.** Reconstitution buffer* - 4 vials containing chromogenic indicator resuspension buffer, each sufficient for 12 tests.
- Plastic 0.5 ml tubes, sufficient for 48 tests.

Storage and shelf life

Store at 2 to 8°C in the containers provided until the expiry date shown on the pack label. Allow to equilibrate to room temperature before opening. Once reconstituted, test solution stored at 2 to 8°C, must be used within 4 weeks.

Precautions

For *in vitro* diagnostic use only. Observe approved biohazard and aseptic techniques. To be used by only trained and qualified laboratory personnel. Sterilise all biohazard waste before disposal. Refer to product safety data sheets.

Materials required but not provided

Standard microbiological supplies and equipment such as loops, MAST Group Ltd. culture media, table top vortexes, pipettes, incinerators and incubators, etc.

Procedure

1. Reconstitute the pellet by tipping the entire contents of vial RB into vial PEL.
2. Allow the pellet to fully dissolve at room temperature for 1 minute and mix contents by gently vortexing for 10 seconds. Reconstituted solution should be yellow, if the solution is any other colour do not use.
3. Dispense 250µl of reconstituted solution into the tubes provided. One tube per test.
4. Using a pure, fresh culture of the test organism, take an approximate 1 to 5µl loopful of organism, and add to the tube containing test solution. Mix well by vortexing for 20 seconds.

Note: to obtain distinct results, ensure that the bacterial resuspension is similar to the turbidity of a 3.0 to 3.5 McFarland standard; Approx. 10⁹ CFU/ml.

5. Incubate at 35±1°C for 10 minutes.
6. Record the colour of the test solution immediately or up to 20 minutes after incubation.

Please refer to corresponding steps on the image page.

Interpretation of results

If a colour change is recorded; from yellow to orange/red, record the organism as demonstrating carbapenemase activity.

If no colour change is recorded; solution remains yellow, record the organism as negative for carbapenemase activity.

Quality control

Check for signs of deterioration. Quality control must be performed with at least one organism to demonstrate a positive reaction and another to demonstrate a negative reaction. Do not use the product if the reactions with the control organisms are incorrect. The list below illustrates a range of performance control strains which the end user can easily obtain.

| Test Organism | Result |
|--|--|
| <i>Acinetobacter baumannii</i> NCTC 13301 | Orange/Red Carbapenemase positive |
| <i>Pseudomonas aeruginosa</i> NCTC 13437 | Orange/Red Carbapenemase positive |
| <i>Acinetobacter lwoffii</i> ATCC® 15309 | Remains Yellow Carbapenemase negative |
| <i>Pseudomonas aeruginosa</i> ATCC® 25668 | Remains Yellow Carbapenemase negative |
| <i>Klebsiella pneumoniae</i> NCTC 13438 | Orange/Red Carbapenemase positive |

Limitations

1. Colonies isolated from indicator media are not recommended.
2. This product only detects the presence of a carbapenemase, differentiation can be carried out by using a suitable genotypic or phenotypic test (for example **MASTDISCS® Combi Carba Plus**; D73C).
3. Some GES-type carbapenemases might be difficult to detect.
4. To avoid potentially erroneous results, ensure that equipment used for testing is free of contamination.
5. Test results must be recorded within 20 minutes following the initial 10 minute incubation.
6. Results obtained with this kit must be considered alongside other clinically relevant data when diagnosing an infection.

References

Bibliography available on request.

Acknowledgement

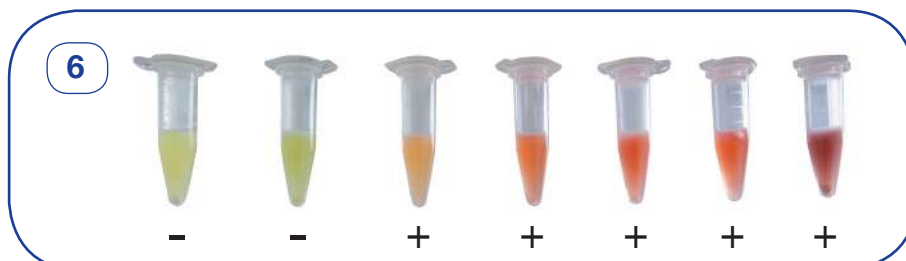
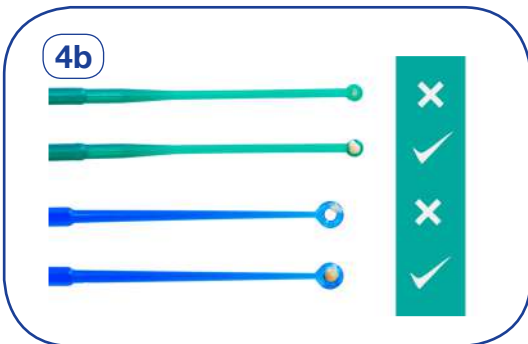
HMRZ compound used in this product was developed by Dr. Hideaki Hanaki of Kitasato, Institute, Japan.



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Mueller Hinton Agar

DM170

Intended Use

A standardised medium for susceptibility testing.

Contents

See pack label.

Formulation*

| Material: | Concentration in medium: |
|-----------------------------|--------------------------|
| Casein hydrolysate | 17.5g/litre |
| Beef infusion from 300g | 2.0g/litre |
| Starch | 1.5g/litre |
| Agar | 17.0g/litre |
| Final pH at 25°C: 7.3 ± 0.1 | |

Storage and shelf life

All dehydrated culture media containers should be kept tightly closed and stored in a dry place at 10 to 25°C until the expiry date shown on the pack label.

Precautions

For *in vitro* diagnostic use only. Observe approved hazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilise all biohazard waste before disposal. Refer to Product Safety Data sheet (available on request or via MAST® website).

Materials required but not provided

Standard microbiological supplies and equipment such as loops, MAST® selective supplements, swabs, applicator sticks, incinerators and incubators, etc., as well as serological and biochemical reagents and additives such as blood.

Procedure

1. Refer to pack label for quantities and volumes required. Prepare MAST® Mueller Hinton Agar (DM170D) by suspending the powder in distilled or deionised water. For sachet packs, dissolve the entire contents of the sachet in the volume shown on the label.
2. Autoclave at 121°C (15 p.s.i.) for 15 minutes.
3. If required cool to 50 to 55°C and hold at this temperature in a water bath. If required add 5 to 7% sterile defibrinated blood to enhance the growth of fastidious organisms or antibiotics (MAST® ADATAB) for dilution susceptibility test methods.
4. Alternative growth supplements can be used.
5. Pour culture plates (25ml per plate) and allow to set.
6. Prepared culture plates may be used immediately or stored in plastic bags at 2 to 8°C for up to one week before use.

7. Antimicrobial Susceptibility Testing should be performed in accordance with standards set down by regulatory bodies such as CLSI® (Clinical and Laboratory Standards Institute) and EUCAST (The European Committee on Antimicrobial Susceptibility Testing).

Interpretation of results

After incubation record diameter of zones of inhibition or Minimum Inhibitory Concentration (MIC). Interpret results as sensitive, intermediate or resistant according to the criteria laid down in the method of use.

Quality control

Check for signs of deterioration. Quality control must be performed with at least one organism to demonstrate expected performance. Do not use the product if the result with the control organism is incorrect. The list below illustrates a range of performance control strains which the end user can easily obtain.

| Test Organisms | |
|--|---|
| <i>Enterococcus faecalis</i> ATCC® 29212 | Growth and correct susceptibility pattern |
| <i>Escherichia coli</i> ATCC® 25922 | Growth and correct susceptibility pattern |
| <i>Pseudomonas aeruginosa</i> ATCC® 27853 | Growth and correct susceptibility pattern |
| <i>Staphylococcus aureus</i> ATCC® 25923 | Growth and correct susceptibility pattern |

References

Bibliography available on request.

MASTDISCS® *Combi* Extended Spectrum Beta-Lactamase (ESβL) Detection Set (CPD10)

D67C

Intended use

For the detection of extended spectrum beta-lactamases (ESβLs) in Enterobacterales.

FOR IN VITRO DIAGNOSTIC USE ONLY

Contents and Formulation*

3 paired sets of cartridges per pack, each cartridge containing approximately 50 discs.

| | | |
|--------------|-------|---|
| Set 1 | CAZ30 | Ceftazidime 30 µg discs |
| | CAZCV | Ceftazidime 30 µg + clavulanic acid 10 µg discs |
| Set 2 | CTX30 | Cefotaxime 30 µg discs |
| | CTXCV | Cefotaxime 30 µg + clavulanic acid 10 µg discs |
| Set 3 | CPD10 | Cefpodoxime 10 µg discs |
| | CPDCV | Cefpodoxime 10 µg + clavulanic acid 1 µg discs |

Storage and shelf life

Store at 2 to 8°C in the containers provided until the expiry date shown on the pack label. Allow to equilibrate to room temperature before opening.

Precautions

For *in vitro* diagnostic use only. Observe approved biohazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilise all biohazard waste before disposal. Refer to Product Safety Data sheet.

Materials required but not provided

Standard microbiological supplies and equipment such as loops, MAST® culture media, Mueller-Hinton agar, swabs, forceps, callipers etc., as well as an incubator capable of maintaining 35 ± 2°C.

Procedure

- Using a pure, fresh culture of the test organism, prepare a suspension equivalent in density to a 0.5 McFarland standard.
- Using a sterile swab spread the suspension uniformly across the surface of a single Mueller Hinton Agar plate in accordance with the Clinical and Laboratory Standards Institute (CLSI) procedure.
- Using a MAST® DISCMASTER Dispenser, or alternatively a sterile needle or forceps, place one of each type of disc onto the plate of inoculated medium, ensuring sufficient space between the discs to allow formation of clearly defined zones of inhibition.

- Incubate at 35 ± 2°C for 17 ± 1 hours.
- Measure and record the diameter of any zones of inhibition, to the nearest whole millimetre. Discs showing no zone of inhibition should be recorded as 6 mm.

Interpretation of results

Compare the zone of inhibition for each cephalosporin alone and when in combination with clavulanic acid. An increase in zone diameter of ≥5 mm in the presence of clavulanic acid for any or all of the sets indicates the presence of ESβL in the test organism.

Quality control

Check for signs of deterioration. Quality control must be performed with at least one organism to demonstrate a positive reaction and at least one organism to demonstrate a negative reaction. Zones of inhibition obtained using the combination disc with clavulanic acid and corresponding cephalosporin only disc against ESβL-negative control organism *E. coli* ATCC® 25922 should be equal or show no greater difference in diameter than ±2 mm. Any greater difference implies malfunction or deterioration. Do not use the product if the reactions with the control organisms are incorrect. The list below illustrates a range of performance control strains which the end user can easily obtain:

| Test Organism | Result |
|--|----------|
| <i>Escherichia coli</i> NCTC 13351 | Positive |
| <i>Escherichia coli</i> NCTC 13352 | Positive |
| <i>Escherichia coli</i> NCTC 13353 | Positive |
| <i>Klebsiella pneumoniae</i> ATCC® 700603 | Positive |
| <i>Escherichia coli</i> ATCC® 25922 | Negative |

Limitations

D67C is not suitable for testing *Pseudomonas* spp. or *Acinetobacter* spp. To avoid potentially erroneous results do not mix cartridges from different batches and ensure all discs in the set are tested on the same plate.

References

Bibliography available on request.

MASTDISCS® *Combi* AmpC Detection Set

D69C

Intended use

For the detection of AmpC β -lactamase enzyme production in Enterobacterales.

FOR IN VITRO DIAGNOSTIC USE ONLY

Contents and Formulation*

3 cartridges per pack, each cartridge containing approximately 50 discs.

Cartridge A Cefpodoxime 10 μ g + AmpC inducer

Cartridge B Cefpodoxime 10 μ g + AmpC inducer + ESBL inhibitor

Cartridge C Cefpodoxime 10 μ g + AmpC inducer + ESBL inhibitor + AmpC inhibitors

Storage and shelf life

Store at 2 to 8°C in the containers provided until the expiry date shown on the pack label. Allow to equilibrate to room temperature before opening.

Precautions

For *in vitro* diagnostic use only. Observe approved biohazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilise all biohazard waste before disposal. Refer to Product Safety Data sheet.

Materials required but not provided

Standard microbiological supplies and equipment such as loops, MAST® culture media, Mueller-Hinton agar, swabs, forceps, callipers etc., as well as an incubator capable of maintaining 35 \pm 1°C.

Procedure

1. Using a pure, fresh culture of the test organism, prepare a suspension equivalent in density to a 0.5 McFarland standard in physiological saline.
2. Using a sterile swab, spread the suspension uniformly across the surface of a single Mueller Hinton Agar plate in accordance with the European Committee on Antimicrobial Susceptibility Testing (EUCAST) procedure.
3. Using a MAST® DISCMASTER Dispenser, or alternatively a sterile needle or forceps, place one of each disc onto the plate of inoculated medium, ensuring sufficient space between the discs to allow formation of clearly defined zones of inhibition.
4. Incubate at 35 \pm 1°C for 18 \pm 2 hours.
5. Measure and record the diameter of any zones of inhibition, to the nearest whole millimetre. Discs showing no zone of inhibition should be recorded as 6 mm.

Interpretation of results

Interpret results by comparing inhibition zone diameters in the sequence described below:

Step 1 - Compare the zone of inhibition of the cefpodoxime plus AmpC inducer disc (**A**) to the zones of inhibition of each of the cefpodoxime plus inducer and inhibitor discs (**B**, and **C**).

If all zones are within 3 mm of each other, record the organism as negative for AmpC production.

Step 2 - Subtract **A** from **C**, **A** from **B** and **B** from **C**.

If **C** – **A** and **C** – **B** is \geq 5 mm the organism is demonstrating AmpC activity. This should be considered as a positive result

If **C** – **A** and **B** – **A** is \geq 5 mm and zones of Discs **B** and **C** have a maximum difference of 4 mm then the organism may be demonstrating another resistance mechanism.

Quality control

Check for signs of deterioration. Quality control must be performed with at least one organism to demonstrate a positive reaction and at least one organism to demonstrate a negative reaction. Zones of inhibition obtained against a negative control organism *E. coli* ATCC® 25922, should be equal or show no greater difference in diameter than \pm 3 mm. Any greater difference implies malfunction or deterioration. Do not use the product if the reactions with the control organisms are incorrect. The list below illustrates a range of performance control strains which the end user can easily obtain:

| Test Organism | Result |
|---|----------|
| <i>Escherichia coli</i> ATCC® 25922 | Negative |
| <i>Escherichia coli</i> DSMZ 22316 (Plasmid AmpC) | Positive |
| <i>Enterobacter cloacae</i> NCTC 13406 (Derepressed AmpC) | Positive |
| <i>Enterobacter cloacae</i> NCTC 13405 (Inducible AmpC) | Positive |

Limitations

D69C is not suitable for use with *Pseudomonas* spp. or *Acinetobacter* spp. To avoid potentially erroneous results do not mix cartridges from different batches of D69C and ensure all discs in the set are tested on the same plate.

The formulation is designed to detect all types of AmpC production. The ESBL inhibitor is present to prevent this enzyme affecting results when an isolate contains both AmpC and ESBL enzymes. Although ESBL inhibitor is contained in discs B and C, this product **cannot** be used for ESBL detection.

References

Bibliography is available on request.

MASTDISCS® Combi Carba plus

D73C

Intended use

For the detection of carbapenemase and OXA-48 enzyme production in Enterobacterales.

FOR IN VITRO DIAGNOSTIC USE ONLY

Contents and Formulation*

5 cartridges per pack, each cartridge containing approximately 50 discs:

| | |
|--------------------|----------------------------|
| Cartridge A | Penem |
| Cartridge B | Penem + MβL inhibitor |
| Cartridge C | Penem + KPC inhibitor |
| Cartridge D | Penem + AmpC inhibitor |
| Cartridge E | Temocillin + MβL inhibitor |

Storage and shelf life

Store at 2 to 8°C in the containers provided until the expiry date shown on the pack label. Allow to equilibrate to room temperature before opening.

Precautions

For *in vitro* diagnostic use only. Observe approved biohazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilise all biohazard waste before disposal. Refer to Product Safety Data sheet.

Materials required but not provided

Standard microbiological supplies and equipment such as loops, MAST® culture media, Mueller-Hinton agar, swabs, forceps, callipers, etc., as well as an incubator capable of maintaining 35 ± 1°C.

Procedure

- Using a pure, fresh culture of the test organism, prepare a suspension equivalent in density to a 0.5 McFarland standard in physiological saline.
- Using a sterile swab, spread the suspension uniformly across the surface of a single Mueller Hinton Agar plate in accordance with the European Committee on Antimicrobial Susceptibility Testing (EUCAST) procedure.
- Using a MAST® DISCMASTER Dispenser, or alternatively a sterile needle or forceps, place one of each disc on to the plate of inoculated medium, ensuring sufficient space between the discs to allow formation of clearly defined zones of inhibition.
- Incubate at 35 ± 1 °C for 18 ± 2 hours.
- Measure and record the diameter of any zones of inhibition, to the nearest whole millimetre, **ignoring any microcolonies in the zone**. Discs showing no zone of inhibition should be recorded as 6 mm.

Interpretation of results

To interpret results based on observed zones of inhibition, use the D73C calculator. The calculator is available for download and can be accessed via www.mast-group.com, in the registered members section. Alternatively, results can be interpreted manually by comparing inhibition zone diameters as described below:

Compare the zone of inhibition of the penem disc (A) to the zones of inhibition of each of the penem plus inhibitor discs (B, C and D).

If disc B **only** shows a zone difference ≥5 mm than disc A (C - A and D - A should be <5 mm), record the organism as demonstrating MβL activity.

If disc C **only** shows a zone difference ≥5mm than disc A (B - A and D - A should be <5 mm), record the organism as demonstrating KPC activity.

If discs C and D both show significant zone differences (≥5 mm) compared to disc A (B - A should be <4 mm), record the organism as demonstrating AmpC activity coupled with porin loss (impermeability). If no synergy is obtained between discs A, B, C and D and disc E shows a zone of inhibition of ≤10 mm, record the organism as demonstrating OXA-48 activity. **If an equivocal or negative result is generated but resistance to disc A is shown, the organism may still be expressing a carbapenemase enzyme. Molecular testing or MASTDISCS® ID D74 Indirect Carbapenemase Test (ICT) can be performed to verify this.**

Quality control

Check for signs of deterioration. Quality control must be performed with at least one organism to demonstrate a positive reaction and at least one organism to demonstrate a negative reaction. Zones of inhibition obtained using the combination discs with inhibitor and corresponding penem only disc against negative control organism *E. coli* ATCC® 25922 should be equal or show no greater difference in diameter than ±2 mm. The zone diameter for disc E should be >10 mm. Any deviation implies malfunction or deterioration. Do not use the product if the reactions with the control organisms are incorrect. The list below illustrates a range of performance control strains which the end user can easily obtain:

| Test Organism | Result |
|--|-----------------|
| <i>Klebsiella pneumoniae</i> NCTC 13440 | MβL Positive |
| <i>Klebsiella pneumoniae</i> NCTC 13438 | KPC Positive |
| <i>Klebsiella pneumoniae</i> NCTC 13442 | OXA-48 Positive |
| <i>Escherichia coli</i> ATCC® 25922 | Negative |

Limitations

D73C is not suitable for detection of carbapenemase production in *Pseudomonas* spp. or *Acinetobacter* spp. To avoid potentially erroneous results, do not mix cartridges from different batches of D73C and ensure all discs in the set are tested on the same plate. D73C may give equivocal results against clinical isolates that have acquired complex co-resident carbapenemase mediated resistance mechanisms. Users are obliged to always use the latest version of the D73C calculator.

References

Bibliography available on request.

MASTDISCS® *Combi* ESβL Detection Set (EUCAST)

D76C

Intended use

For the detection of extended spectrum beta-lactamases (ESβLs) in Enterobacterales.

FOR IN VITRO DIAGNOSTIC USE ONLY

Contents and Formulation*

2 paired sets of cartridges per pack, each cartridge containing approximately 50 discs:

| | | |
|--------------|-------|---|
| Set 1 | CTX5 | Cefotaxime 5 µg discs (x1) |
| | CTXCV | Cefotaxime 5 µg + clavulanic acid 10 µg discs (x1) |
| Set 2 | CAZ10 | Ceftazidime 10 µg discs (x1) |
| | CAZCV | Ceftazidime 10 µg + clavulanic acid 10µg discs (x1) |

Storage and shelf life

Store at 2 to 8°C in the containers provided until the expiry date shown on the pack label. Allow to equilibrate to room temperature before opening.

Precautions

For *in vitro* diagnostic use only. Observe approved biohazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilise all biohazard waste before disposal. Refer to Product Safety Data sheet.

Materials required but not provided

Standard microbiological supplies and equipment such as loops, MAST® culture media, Mueller-Hinton agar, swabs, forceps, callipers etc., as well as an incubator capable of maintaining 35 ± 1°C.

Procedure

- Using a pure, fresh culture of the test organism, prepare a suspension equivalent in density to a 0.5 McFarland standard in physiological saline.
- Using a sterile swab, spread the suspension uniformly across the surface of a single Mueller Hinton Agar plate in accordance with the European Committee on Antimicrobial Susceptibility Testing (EUCAST) procedure.
- Using a MAST® DISCMASTER Dispenser, or alternatively a sterile needle or forceps, place one of each disc onto the plate of inoculated medium, ensuring sufficient space between the discs to allow formation of clearly defined zones of inhibition.
- Incubate at 35 ± 1 °C for 18 ± 2 hours.
- Measure and record the diameter of any zones of inhibition, to the nearest whole millimetre. Discs showing no zone of inhibition should be recorded as 6 mm.

Interpretation of results

Compare the zone of inhibition for the cephalosporin disc to that of the corresponding cephalosporin plus clavulanic acid combination disc. An increase in zone diameter of ≥5mm in the presence of clavulanic acid for one or both of the sets indicates the presence of ESβL in the test organism.

Quality control

Check for signs of deterioration. Quality control must be performed with at least one organism to demonstrate a positive reaction and at least one organism to demonstrate a negative reaction. Zones of inhibition obtained using combination disc plus clavulanic acid and corresponding cephalosporin only disc against ESβL-negative control organism *E. coli* ATCC® 25922 should be equal or show no greater difference in diameter than ±2mm. Any greater difference implies malfunction or deterioration. Do not use the product if the reactions with the control organisms are incorrect. The list below illustrates a range of performance control strains which the end user can easily obtain:

| Test Organism | Result |
|-------------------------------------|---------------|
| <i>Escherichia coli</i> NCTC 13351 | Positive |
| <i>Escherichia coli</i> NCTC 13353 | Positive |
| <i>Escherichia coli</i> ATCC® 25922 | ESβL Negative |

Limitations

D76C is not suitable for testing *Pseudomonas* spp. or *Acinetobacter* spp. To avoid potentially erroneous results do not mix cartridges from different batches and ensure all discs in the set are tested on the same plate.

References

Bibliography available on request.