

# MASTDISCS® Combi

ESBL Detection Set (EUCAST) - D76C

Cefotaxime & Ceftazidime



# MASTDISCS Combi

## **Extended Spectrum beta-lactamases**

Extended spectrum beta-lactamases (ESBLs) are bacterial enzymes which confer resistance to penicillin and extended spectrum cephalosporin antibiotics in members of the order Enterobacterales. Most ESBL are susceptible to cephamycins, and are susceptible to carbapenems although resistance can arise through porin loss.

The prevalence of ESBL producing pathogens is continuing to increase worldwide, limiting the antibiotic treatment options posing challenges in antibiotic management. Disc diffusion using cephalosporin discs with and without clavulanic acid, are used for phenotypic confirmation of ESBL production in Enterobacterales.

EUCAST has aligned the cephalosporin disc potencies for antimicrobial susceptibility testing (AST) and ESBL confirmation. Accordingly, EUCAST recommends laboratories to introduce combination discs containing cefotaxime 5 μg and ceftazidime 10 μg with and without clavulanic acid 10 μg for routine phenotypic confirmation of ESBL production in Enterobacterales<sup>1</sup>.

### MASTDISCS® Combi ESBL Detection Set (EUCAST)

MAST's range of ESBL detection discs offers laboratories a simple, reliable and low cost means of identification and detection by using paired combination disc sets.

The MASTDISCS® Combi ESBL Detection Set (EUCAST) contains two paired sets of cartridges each containing approximately 50 discs:

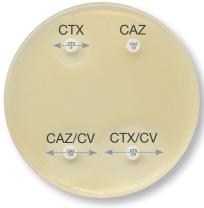
1 × Cefotaxime 5 μg discs

1 × Cefotaxime 5 μg + Clavulanic acid 10 μg discs

1 × Ceftazidime 10 μg discs

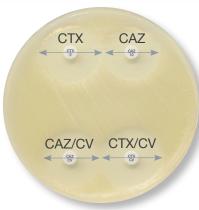
1 × Ceftazidime 10 μg + Clavulanic acid 10 μg discs

#### **ESBL** positiv



CTX/CV - CTX  $\geq$  5 mm and/or CAZ/CV - CAZ  $\geq$  5 mm

#### **ESBL** negativ



Difference of all inhibition zones < 5 mm

#### CTX - Cefotaxime

CAZ - Ceftazidime

CV - Clavulanic acid

#### For use of D76C calculator:

Results can also be interpreted using the D76C calculator (available for free download at www.mast-group.com).

Input measured diameter of inhibition zones on the D76C calculator:

Interpretation of results are generated automatically.

# **Ordering Information**

Order Code	Product	No. Tests
171762	MASTDISCS® Combi ESBL Detection Set (EUCAST) - D76C	50

1. EUCAST technical guidance on the use of the combination disk test (CDT) for confirmation of ES $\beta$ L in Enterobacterales (Feb 2019)

ZT234 v1.0 CEA 09-2019 (MD 2019-11-05)

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

Tel: +44 (0)151 933 7277 Fax: +44 (0)151 944 1332 e-mail: sales@mastgrp.com Germany Mast Diagnostica GmbH Feldstraße 20 DE-23858 Reinfeld

Tel: +49 (0)4533 2007 0 Fax: +49 (0)4533 2007 68 e-mail: mast@mast-diagnostica.de France
Mast Diagnostic
12 rue Jean-Jacques Mention
CS91106, 80011 Amiens, CEDEX 1

Tél: +33 (0)322 80 80 67 Fax: +33 (0)322 80 99 22 e-mail: info@mast-diagnostic.fr