IVD solutions through partnership

Mast Group

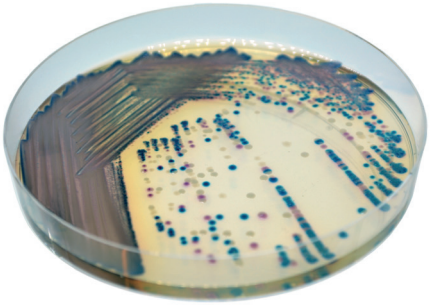
CHROMagar™ COL-*APSE*

For detection of Colistin resistant Gram-negative bacteria

CHROMagar

The Chromogenic Media Pioneer

CHROMagar™ COL-*APSE*



For detection of Colistin resistant Gram-negative bacteria

Background

Polymyxin E (colistin) and B are increasingly used as antimicrobials in the treatment of multidrug resistant bacterial infections. Polymyxin resistance, although intrinsic in Gram-positive and some Gram-negative species (*Proteus*, *Morganella*, *Serratia*), is now a problem in a number of other pathogens (*Acinetobacter baumannii*, *Pseudomonas aeruginosa*, *Escherichia coli*, *Salmonella enterica*, *Klebsiella pneumoniae*).[1]

Resistance arises due to mutations / insertions in genes involved in LPS biosynthesis (lpx, pmrA/B, mgrB, phoP/Q) and / or the acquisition of phosphoethanolamine transferases (PEtN). Of great concern is the recently described plasmid-encoded PEtN, MCR-1, now found worldwide in a range of animal, human and environmental bacterial isolates.[1]

CHROMagar™ COL-*APSE* is a sensitive and specific medium for the growth of Colistin resistant bacterial pathogens with a lower limit of detection of 10 CFU/ml. This new chromogenic medium may be useful as a primary isolation medium in the surveillance and recovery of Colistin resistant bacteria from complex human, veterinary and environmental samples especially those with plasmid mediated MCR-1 or novel mechanisms of polymyxin resistance.[1]

1- Novel Chromogenic Culture Media (CHROMagar™ COL-APSE) for the Isolation and Differentiation of Colistin Resistant Gram-negative Pathogens. Muhd Haziq F Abdul Momin, David W Wareham. ECCMID 2017.

Plate Reading

- COL-R *E.coli*
  → dark pink to reddish
- COL-R *Klebsiella, Enterobacter, Citrobacter*
  → metallic blue
- COL-R *Pseudomonas*
  → translucent cream to green
- COL-R *Acinetobacter*
  → cream, opaque

Medium Performance

1. **Colourful differentiation of colonies with acquired colistin resistance.**
   Distinguishing between *E.coli*, Coliforms, *Pseudomonas* and *Acinetobacter*.
2. **Impressive limit of detection.**
   10 cfu/ml

Medium Description

Powder Base	Total .....42,5 g/L Agar .....15.0 Peptones .....20.0 Salt .....5.0 Chromogenic and selective mix .....0.8 Growth factors .....1.7 Storage at 15/30°C - pH: 7.1 +/-0.2 Shelf Life ..... 2 years
+ **Supplement** (included in the pack)	Liquid form .....2 mL/L Storage at 15/30 °C Shelf Life ..... 3 years
Usual Samples	stools, rectal swabs, veterinary, environmental samples.
Procedure	Direct Streaking. Incubation 18-24h at 37 °C Aerobic conditions.
Scientific Publications on this product: available on www.CHROMagar.com Please read carefully the instructions for use (IFU document) available on www.CHROMagar.com	

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Ordering Information

Product	Order Code
CHROMagar™ COL-APSE dry media, 5 liter	15CO262
CHROMagar™ COL-APSE ready to use plates, 20 pcs.	201475