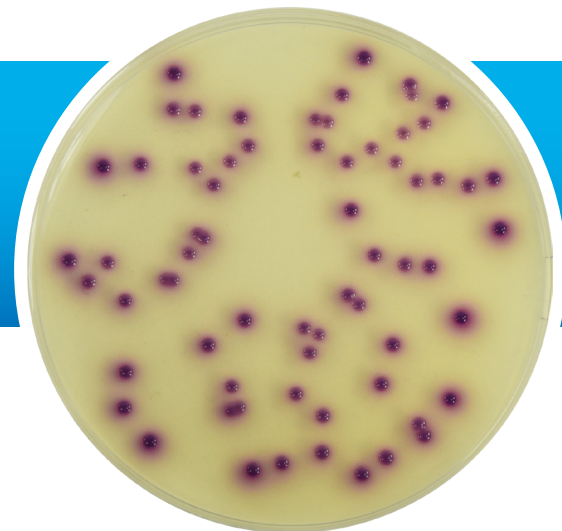


PP3001 COLOREX™ ESBL



Extended Spectrum Beta-Lactamase (ESBL) enzymes are produced by Gram-negative bacilli belonging to the Enterobacteriaceae. ESBLs are mostly encoded by plasmids that are transferable between bacterial species and are active against the second and third generation cephalosporins such as cefotaxime and ceftazidime. First described in 1983, the emergence and subsequent rapid dissemination of ESBLs represents a serious threat to public health.⁽¹⁾

Recent developments in culture media have given rise to the use of chromogenic substrates as a means of differentiating bacteria particularly among the Enterobacteriaceae. Colorex™ ESBL (Extended Spectrum Beta-Lactamase) medium has been developed for the isolation of ESBL – producing organisms with the aim of simplifying the differentiation and presumptive identification of the causative organism. It should be noted that other non-ESBL and AmpC isolates will be inhibited on this medium reducing the incidence of false positives.

The distinctive colonial colouration of the various species can reduce the need for additional follow up testing allowing many positive results to be issued within 24 hours of receipt of the sample. If necessary an Indole test for confirmation of *Escherichia coli* and TDA test for *Proteus* spp. can be performed directly from the medium.

Escherichia coli – Red colonies

Proteus spp., *Providencia* spp. & *Morganella* spp. – Clear colonies with a brown halo

Klebsiella spp, *Enterobacter* spp & *Citrobacter* spp. – Metallic blue colonies

Salmonella spp & *Acinetobacter* spp. – Clear colonies

Gram +ve bacterial species & Yeasts – Inhibited

⁽¹⁾ Knothe, H. et al. 1983. Infection, 11: 315-317

Formula	gm/litre	Properties	
Peptone & Yeast Extract	17.0	Appearance	Firm Gel
Chromogenic Mix	1.0	Colour	Pale Straw
Agar	15.0	pH	7.0 ± 0.2
Selective Supplement	0.57	Storage	2 - 8 °C
		Shelf Life	42 days

Quality Control Test Organisms	Ref. No.	Result
<i>Escherichia coli</i>	NCTC 13341	Red Colonies
<i>Klebsiella pneumoniae</i>	NCTC 13368	Metallic Blue Colonies
<i>Escherichia coli</i>	NCTC 12241	Inhibited
<i>Proteus mirabilis</i>	NCTC 10975	Inhibited
<i>Enterobacter aerogenes</i>	NCTC 10006	Inhibited

Recommended Incubation : Aerobically at 37°C ± 1°C for 18 - 24 hours