ESBL Isolation Agar

Product:

MP1315 ESBL Isolation Agar

pH 7.1 +/-0.2

Appearance of uninoculated medium:

Clear pink

Description:

ESBL Isolation Agar is a selective medium used for isolating antibiotic resistant Enterobacteriaceae that produce extended spectrum beta-lactamases (ESBL's). The presence of salt and crystal violet inhibits most gram positive organisms, and the addition of an antibiotic solution will inhibit susceptible Gram negative bacilli.

Technique:

Bring medium to room temperature prior to inoculation. ESBL Isolation Agar is a primary culture media and can be inoculated directly with clinical specimens. The inoculum is streaked to obtain single colonies.The plates are incubated aerobically at 35^{o}C for 24 hours.

Interpretation:

After 18 to 24 hours, at 35^{o}C, only resistant organisms will produce growth. Colonies which ferment lactose are violet-red in color, while non-lactose fermenters will be colourless. Presumptive identification only should be done based on colonial characteristics. Confirmation tests should follow for final identification and to confirm that the observed reduction in susceptibility is due to an ESBL.

Quality Control:

The Quality Assurance of this medium meets or exceeds all NCCLS standards, according to NCCLS document M22-A3. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. A fresh culture should be used each time quality control testing is performed. The following is the minimum QC performance protocol used by Oxoid Inc.

Organism tested	ATCC® #	Expected results
Escherichia coli	51446	Growth; pink to red colonies
Klebsiella pneumoniae	700603	Growth; mucoid pink to red colonies
Proteus mirabilis	BAA-856	Growth; no swarming
Escherichia coli	25922	Inhibition

Storage Conditions:

Plates should be stored at 2 to 12^{o}C away from direct light. Media should not be used if there is any sign of contamination, damage or deterioration such as shrinkage, cracking, or discolouration of media. Discard expired plates.

References:

1. **Willey, B.M., et al.**, Evaluation of Cefpodoxime Screen (POD) Plate for the Detection of Third Generation Cephalosporin Resistance (3GC-R) in E.coli (EC) and Klebsiella spp (KP/KO) ASM Abstract C-258. ASM Annual Meeting. 1999.

2. **Canada Communicable Disease Report.** July 15 2002. Volume 28. Number 14.