TRM 1199 –CHROMOGENIC UTI AGAR

INTENDED USE

For presumptive identification of microorganisms mainly causing urinary tract infections

PRODUCT SUMMARY AND EXPLANATION

Urinary tract infections are bacterial infections affecting parts of the urinary tract. The common symptoms of urinary tract infection are urgency and frequency of micturition, with associated discomfort or pain. The common condition called cystitis is due to infection of the bladder with a uropathogenic bacterium, which most frequently is *Escherichia coli*, but sometimes *Staphylococcus saprophyticus* or especially in cases hospital-acquired infections, *Klebsiella* species, *Proteus mirabilis* and other coliforms like *Pseudomonas aeruginosa* or *Enterococcus faecalis*. Chromogenic UTI Agar is formulated on basis of work carried out by Pezzlo Wilkie et al, Friedman et al, Murray et al, Soriano and Ponte and Merlino et al.

COMPOSITION

Ingredients	Gms / Ltr
Agar	15.000
Peptone, special	15.000
Chromogenic mixture	2.450

PRINCIPLE

Peptone special provides nitrogenous, carbonaceous compounds and other essential growth nutrients while agar as a solidifying agent. UTI Agar contains two specific Chromogenic substrates which are cleaved by enzymes produced by *Enterococcus* spp., *Escherichia coli* and coliforms. In addition, it contains phenylalanine and tryptophan, which provide an indication of tryptophan deaminase activity, indicating the presence of *Proteus* spp., *Morganella* spp. and *Providencia* spp. One of the Chromogenic substrate is cleaved by ß- glucosidase possessed by Enterococci resulting in formation of blue colonies. *E. coli* produces pink colonies due to the enzyme ß-D-galactosidase that cleaves the other Chromogenic substrate. Further confirmation of *E. coli* can be done by performing the Indole test. Coliforms produce purple coloured colonies due to cleavage of both the Chromogenic substrate. Colonies of *Proteus* spp., *Morganella* spp. and *Providencia* spp. appear brown because of tryptophan deaminase activity

INSTRUCTION FOR USE

1. Chromogenic UTI Agar is a ready to use solid media in glass bottle. The medium is pre-sterilized, hence sterilization is not required.
2. Prior to use, medium in the bottle can be melted either by using a pre-heated water bath or any other method.
3. Slightly loosen the cap before melting.
4. Pour liquefied agar into each plate as desired and allow them to solidify at room temperature. Plates are now ready to inoculate or refrigerate for later use.

QUALITY CONTROL SPECIFICATIONS

Appearance	:	Light amber color, clear to slightly opalescent gel.
Quantity of Medium	:	100 ml of the medium in glass bottle.
pH (at 25°C)	:	6.8± 0.2
Sterility Check	:	Passes release criteria

INTERPRETATION

Cultural characteristics observed after inoculation of 50-100 CFU, on incubation. Recovery rate is considered 100% for bacteria growth on Soya Agar.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Appearance of Colony	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	>=70%	Pink-Purple	35-37°C	18-24 Hours
Pseudomonas aeruginosa	27853	50-100	Luxuriant	>=70%	Colourless colonies with slightly green pigmentation	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	Luxuriant	>=70%	Bluish purple, mucoid colonies	35-37°C	18-24 Hours
Enterococcus faecalis	29212	50-100	Luxuriant	>=70%	Small blue colonies	35-37°C	18-24 Hours
Staphylococcus aureus	25923	50-100	Luxuriant	>=70%	Cream-yellow	35-37°C	18-24 Hours
Proteus mirabilis	12453	50-100	Luxuriant	>=70%	Light brown	35-37°C	18-24 Hours

PACKAGING

100 ml glass bottles.

STORAGE

On receipt, store bottles in the dark at 2-8 °C. Avoid freezing and overheating. The medium may be used up to the expiration date and incubated for the recommended incubation times. Bottles from unopened packages can be used up to the expiration date. Opened bottles must be used immediately. To prepare plates or tubes from the bottled medium, it must first be liquefied. Do not liquefy any leftovers for a second time

Product Deterioration: Do not use bottles if they show evidence of microbial contamination, discoloration, or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone.
2. Pezzlo M., 1998, Clin. Microbiol. Rev., 1:268-280.
3. Wilkie M. E., Almond M. K., Marsh F. P., 1992, British Medical Journal 305:1137-1141.
4. Friedman M. P. et al, 1991, J. Clin. Microbiol., 29:2385-2389.
5. Murray P., Traynor P. Hopson D., 1992, J. Clin. Microbiol. 30:1600-1601.
6. Soriano F., Ponte C., 1992, J. Clin. Microbiol. 30:3033-3034.
7. Merlino et al, 1995, Abstr. Austr. Microbiol. 16(4):17-3

For In Vitro Diagnostic Use

Quantity

Lot / Batch Number


Temprature Unit


Best Before


European Conformity


QR
Code

Catalogue No.


Consults Instructions for use :


Manufacturer

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

Revision: 05thOct. 2019