TMP 1199- CHROMOGENIC UTI AGAR PLATE

INTENDED USE
For identification and confirmation of microorganisms causing urinary tract infections.

PRODUCT SUMMARY AND EXPLANATION
Urinary tract infections are bacterial infections affecting parts of urinary tract. The common symptoms of urinary tract infection are urgency and frequency of micturition, with associated discomfort or pain. The common condition is cystitis, due to infection of the bladder with a uropathogenic bacterium, which most frequently is *Escherichia coli*, but sometimes *Staphylococcus saprophyticus* or especially in hospital-acquired infections, *Klebsiella species*, *Proteus mirabilis*, other coliforms, *Pseudomonas aeruginosa* or *Enterococcus faecalis*. Chromogenic UTI Agar is formulated on basis of work carried out by PezzloWilkie 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
Either streak, inoculate or surface spread the test inoculum aseptically on the plate.

QUALITY CONTROL SPECIFICATIONS

Appearance	:	Light amber coloured.
Quantity of Medium	:	25ml of medium in 90mm plates.
pH (at 25°C)	:	6.8 ± 0.2
Sterility Check	:	Passes release criteria

INTERPRETATION
Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Appearance of colony	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	>=70%	Pink-purple colonies	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%	Golden – yellow	35–37°C	18- 24 Hours
Proteus mirabilis	12453	50-100	Luxuriant	>=70%	Light brown	35–37°C	18- 24 Hours

PACKAGING:

Double layered packing containing 5 No. of plates with one silica gel desiccant bag packed inside it.

STORAGE

On receipt, store the plates at 2–8 °C. Avoid freezing and overheating. Do not open until ready to use. Prepared plates stored in their original sleeve wrapping until just prior to use may be inoculated up to the expiration date and incubated for recommended incubation times. Allow the medium to warm to room temperature before inoculation.

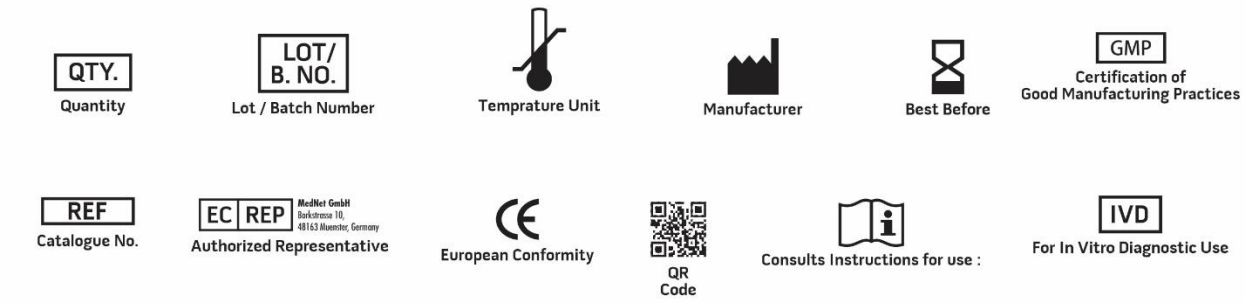
Product Deterioration: Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

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



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

***For Lab Use Only**

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