

TMP 002 – CETRIMIDE AGAR PLATE

INTENDED USE

For selective isolation of *Pseudomonas aeruginosa* from pharmaceutical product and clinical specimens.

PRODUCT SUMMARY AND EXPLANATION

CETRIMIDE AGAR PLATE is used for the selective isolation of *Pseudomonas aeruginosa* from samples. The medium contains quaternary ammonium, cationic detergent compound like Cetrimide which has a property to inhibit all the bacteria except *P. aeruginosa* thus making the medium selective for *Pseudomonas aeruginosa*. Cetrimide causes release of nitrogen and phosphorus from bacterial cells other than *P. aeruginosa*.

COMPOSITION

Ingredients	Gms / Ltr
Pancreatic digest of gelatin	20.00
Agar	13.60
Potassium sulphate	10.00
Magnesium chloride	1.40
Cetrimide	0.30

PRINCIPLE

Pancreatic digest of gelatin is a source of carbon and nitrogen for the growth of microorganisms. Agar is a solidifying agent. Magnesium chloride and Potassium sulphate stimulates the bacterium to produce and secrete a pigment called pyocyanin due to which the colony colour turns light green, and also they form a grape like odour due to production of aminoacetophenone. These are the typical characteristics that help isolating *P. aeruginosa* using cetrimide agar base. On incubation of plates in an inverted position (agar side up) at $35 \pm 2^\circ\text{C}$ for 18-48 hours of *P. aeruginosa* showed profuse growth whereas strain of *E. coli* inhibits the growth in this medium. If the cfu/ml is high then the test sample can be directly inoculated onto this cetrimide medium.

INSTRUCTION FOR USE

Either streak, inoculate or surface spread the test inoculum aseptically on the plate.

QUALITY CONTROL SPECIFICATIONS

Appearance	: Light Amber colored medium
Quantity of Medium	: 25ml of medium in 90mm plates.
pH (at 25°C)	: 7.2 ± 0.2
Sterility Check	: Passes release criteria

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the Colony	Incubation Temperature	Incubation Period
<i>Pseudomonas aeruginosa</i>	27853	50-100	Good	>40-50 %	Yellow green	30-35°C	18-72 Hours



<i>Pseudomonas aeruginosa</i>	9027	50-100	Good	>40-50 %	Yellow green	30-35°C	18-72 Hours
<i>Escherichia coli</i>	25922	≥1000	Inhibited	0 %	-	30-35°C	18-72 Hours
<i>Staphylococcus aureus</i>	25923	≥1000	Inhibited	0 %	-	30-35°C	18-72 Hours

PACKAGING:

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

STORAGE

On receipt, store the plates at 15–30 °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.

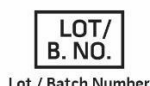
Product Deterioration: Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

DISPOSAL

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

REFERENCES

1. King, Ward and Raney, 1954, J. Lab. Clin. Med., 44:301.
2. Lowbury, 1951, J. Clin. Pathol., 4:66.
3. Lowbury and Collins, 1955, J. Clin. Pathol., 8:47.
4. Brown and Lowbury, 1965, J. Clin. Pathol., 18:752.
5. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Tenover F. C., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
6. USDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.
7. Forbes B. A., Sahm A. S. and Weissfeld D. F., Bailey & Scotts Diagnostic Microbiology, 10th Ed., 1998, Mosby, Inc., St. Louis, Mo.
8. Williams, (Ed.), 2005, Official Methods of Analysis of the Association of Official Analytical Chemists, 19th Ed., AOAC, Washington, D.C.



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

***For Lab Use Only**

Revision: 22nd March. 20: 2

