TMHV 113 – CETRIMIDE AGAR (as per USP/EP/JP/BP) (VEG.)

INTENDED USE

For selective isolation of *Pseudomonas aeruginosa.*

PRODUCT SUMMARY AND EXPLANATION

Cetrimide Agar was described by King et al. This media formulation is in accordance with the harmonized method of USP/EP/BP/JP/IP. It is used as a selective medium for the isolation of *Pseudomonas aeruginosa* from pharmaceutical products. This medium is also recommended for microbial limit testing of non- sterile products. Lowburry first reported the use of cetrimide as an agent for selective isolation of *Pseudomonas* spp. This medium is also used for determining the ability of an organism to produce fluorescein and pyocyanin.

COMPOSITION

Ingredients	Gms / Ltr
Veg extract	20.000
Magnesium chloride	1.400
Dispotassium sulphate	10.000
Centrimide	0.300
Agar	13.600

PRINCIPLE

Cetrimide (N-acetyl-N,N,Ntrimethylammonium bromide) is incorporated in the medium to inhibit bacteria other than *Pseudomonas aeruginosa*. This compound a cationic detergent acts as a quaternary ammonium compound, which causes nitrogen and phosphorus to be released from bacterial cells other than *Pseudomonas aeruginosa*. Magnesium chloride and potassium sulphate incorporated in the medium enhances the production of pigment pyocyanin, which is a blue-green pigment, diffusing into the medium. This improves detection of *Pseudomonas* spp. on this medium. Presence of magnesium ions can also neutralize the EDTA, if present in the sample. Pancreatic digest of gelatin provides the essential nutrients for growth of *Pseudomonas* spp., while glycerol serves as slow and continuous carbon source for the growing cells.

INSTRUCTION FOR USE

- Dissolve 45.30 grams in 1000 ml distilled water containing 10 ml glycerol.
- Gently heat to boiling with swirling to dissolve the medium completely.
- Sterilize by autoclaving at psi (121°C) for 15 minutes.
- Cool to 45-50 °C.
- Mix well and pour into sterile petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Light amber coloured opalescent gel with a slight precipitate forms in Petri plates.

pH (at 25°C) : 7.2±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

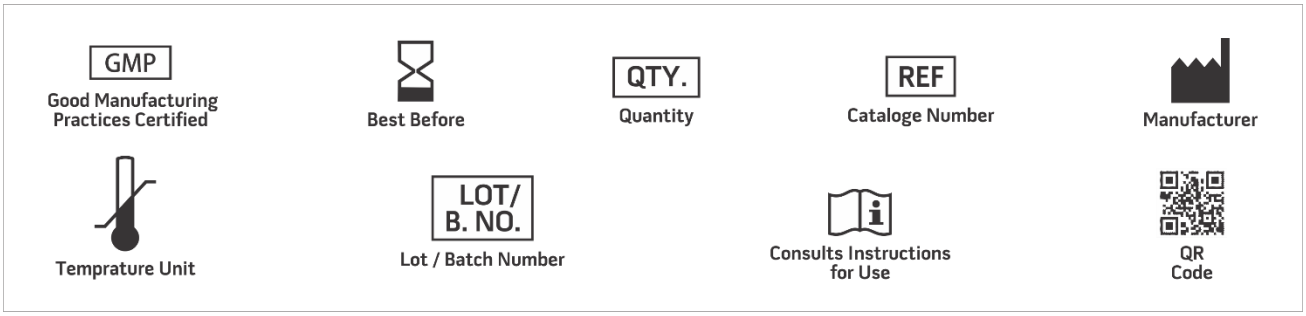
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Pigmentation	Recovery	Incubation Temperature	Incubation Period
Pseudomonas aeruginosa	27853	50-100	Good-Luxuriant	green color fluorescence	≥50%	30 - 35°C.	18-72 Hours
Pseudomonas aeruginosa	9027	50-100	Good-Luxuriant	green color fluorescence	≥50%	30 - 35°C.	18-72 Hours
Staphylococcus aureus	25923	≥1000	Inhibited	-	0%	30 - 35°C.	> 72 Hours
Staphylococcus aureus	6538	≥1000	Inhibited	-	0%	30 - 35°C.	> 72 Hours
Escherichia coli	25922	≥1000	Inhibited	-	0%	30 - 35°C.	> 72 Hours
Escherichia coli	8739	≥1000	Inhibited	-	0%	30 - 35°C.	> 72 Hours
Salmonella typhimurium	14028	≥1000	Inhibited	-	0%	30 - 35°C.	> 72 Hours

PACKAGING:
In pack size of 100 gm and 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying 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.King, Ward and Raney, 1954, J. Lab. Clin. Med., 44:301.
2.The United States Pharmacopoeia, 2011 The United States Pharmacopoeial Convention. Rockville, MD.
3.British Pharmacopoeia, 2011, The Stationery office British Pharmacopoeia
4.European Pharmacopoeia, 2011 European Dept. for the quality of Medicines.
5.Japanese Pharmacopoeia, 2008 6.Lowbury E J L., 1951, J.Clin.Path., 4:66. 7.Indian Pharmacopoeia, 2010, Govt. of India, Ministry of Health and Family Welfare, New Delhi



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
Revision: 08 Nov., 2019