Technical Data Sheet

ACMA001 Cetrimide Agar

For the selection and subculture of Pseudomonas aeruginosa in accordance with the harmonized method of USP/EP/BP/JP/IP.

Composition	Ingredients Gms / Litre
Peptone from Gelatin	20.000
Magnesium chloride	1.400
Potassium sulphate	10.000
N –acetyl –N,N,N-Tri methyl ammonium bromide	0.300
Agar – agar	13.600

Appearance:

Light amber Colour Cetrimide agar in 90 mm Petri Plates

pH (at 25°C):

7.00 to 7.40

Principle:

Cetrimide Agar is based on the formulation described in BP and is in accordance with the harmonized method of USP/EP/IP/JP. It is used as a selective medium for the isolation of Pseudomonas aeruginosa from pharmaceutical products. This medium is also used for microbial limit testing for non-sterile products. This medium is also used for determining the ability of an organism to produce fluorescein and pyocyanin. Cetrimide (N-acetyl-N, N,N-trimethyl ammonium 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 on this medium. Presence of magnesium ions can also neutralize EDTA, if present in the sample. Pancreatic digest of gelatin provides the essential nutrients for growth of Pseudomonas , while glycerin serves as slow and continuous carbon source for the growing cell.
For the isolation of *Pseudomonas aeruginosa* , plates of Cetrimide Agar should be inoculated from non-selective medium such as Soyabean Casein Digest Medium. If the count is high the test sample can be directly inoculated onto this medium. *Pseudomonas aeruginosa* colonies may appear pigmented greenish (under UV light also).

Quantity of Medium

30ml of medium in 90mm plates

Dose of Gamma irradiation

12to 17 KGy

Cultural Response

Cultural characteristics observed by using standard ATCC cultures after an incubation 24 hours at 30-35°C and recovery should be greater than 70%.

Sterility Test:

Passes release criteria.

Shelf Life and Storage Conditions:

Use before expiry date on the label and store below 25°C.

Reference Pharmacopoeia:

USP/EP / BP / JP / IP