

CETRIMIDE AGAR

APPLICATION	Cetrimide Agar is used for the selective isolation of <i>Pseudomonas aeruginosa</i> from pharmaceutical products in accordance with the microbial limit testing by harmonized methodology of USP/EP												
PRINCIPLE AND INTERPRETATION	<p>Cetrimide Agar was described by King et al ¹. This media formulation is in accordance with the harmonized method of USP/EP/BP²³⁴. It is used as a selective medium for the isolation of <i>Pseudomonas aeruginosa</i> from pharmaceutical products. This medium is also used for microbial limit testing for non- sterile products. Lowburry first reported the use of cetrimide as an agent for selective isolation of <i>Pseudomonas</i> ⁵. This medium is also used for determining the ability of an organism to produce fluorescein and pyocyanin. Cetrimide (N-acetyl-N,N,N-trimethylammonium bromide) is incorporated in the medium to inhibit bacteria other than <i>Pseudomonas aeruginosa</i>.</p> <p>This compound a cationic detergent acts as a quaternary ammonium compound, which causes nitrogen and phosphorus to be released from bacterial cells other than <i>Pseudomonas aeruginosa</i>. 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 <i>Pseudomonas</i> 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 <i>Pseudomonas</i>, while glycerin serves as slow and continuous carbon source for the growing cell.</p> <p>For the isolation of <i>Pseudomonas aeruginosa</i>, plates of Cetrimide Agar should be inoculated from non-selective medium such as Soybean Casein Digest Medium. If the count is high the test sample can be directly inoculated onto this medium. <i>Pseudomonas aeruginosa</i> colonies may appear pigmented greenish (under UV light also). Addition of nalidixic acid can aid in inhibiting the growth of accompanying flora</p>												
MEDIUM COMPOSITION*	<p>Pancreatic Digest of gelatin.....20.000 g/l Magnesium chloride.....1.400 g/l Dipotassium Phospate.....10.000 g/l Cetrimide.....0.300 g/l Glycerol.....10.000 ml/l Agar.....13.600 g/l</p> <p>Final pH : 7.2±0.2</p> <p>*Adjusted and/or supplemented as required to meet performance criteria</p>												
STORAGE	<p>+2°/+8°C Protect from light, excessive heat, moisture and freezing</p>												
QUALITY CONTROL	<p>Growth Promotion Test:</p> <table border="1" data-bbox="507 1462 1487 1666"> <thead> <tr> <th>Control strain</th> <th>Medium inoculation level</th> <th>Incubation Conditions</th> <th>Recovery Specifications</th> </tr> </thead> <tbody> <tr> <td><i>P. aeruginosa</i> ATCC 9027</td> <td>10-100 viable microorganisms</td> <td>18 h at 32.5 ± 2.5°C</td> <td>Good growth. Colonies may appear pigmented yellow-green or nonpigmented</td> </tr> <tr> <td><i>E. coli</i> ATCC 8739</td> <td>≥100 viable microorganisms</td> <td>72 h at 32.5 ± 2.5°C</td> <td>Inhibited</td> </tr> </tbody> </table>	Control strain	Medium inoculation level	Incubation Conditions	Recovery Specifications	<i>P. aeruginosa</i> ATCC 9027	10-100 viable microorganisms	18 h at 32.5 ± 2.5°C	Good growth. Colonies may appear pigmented yellow-green or nonpigmented	<i>E. coli</i> ATCC 8739	≥100 viable microorganisms	72 h at 32.5 ± 2.5°C	Inhibited
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GENERAL WARNING NOTES	<p>Device must be handled according to asepsis precautions, of utilization of culture media is strictly referred to the type of analysis that must be done. Please refer to specific norms and procedures. Do not use if device is broken. Do not use if media shows accidental contamination signs. Do not utilize after expiry date. Let device reach room temperature before utilizing. Results interpretation must be done by qualified personnel, who must consider context of use.</p> <p>Disposal of waste must be carried out according to national and local regulations in force</p>												

¹ King, Ward and Raney, 1954, J.Lab. Clin. Med., 44:301.

² The US Pharmacopoeia, current edition, The US Pharmacopoeial Convention, Rockville, MD.

³ British Pharmacopoeia, 2011, The Stationery Office british Pharmacopoeia

⁴ European Pharmacopoeia, current edition

⁵ Lowburry E J L., 1951, J. Clin Path, 4:66

CETRIMIDE AGAR

This product is available in:

- Non Gamma irradiated media plates

MODEL	PRODUCT CODE	ORDER CODE	DESCRIPTION	SHELF LIFE
Ø90mm	MU024/10	MU024/10.100 (100pcs/pack)	Filling volume: 24ml Packaging: Single Wrapping (SW)	3 months
Ø60mm	MU024/14	MU024/14.100 (100pcs/pack)	Filling volume: 10ml Packaging: Single Wrapping (SW)	3 months