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CETRIMIDE AGAR

INTENDED USE:
Cetrimide Agar is used for the selective isolation and presumptive identification of Pseudomonas aeruginosa from clinical and nonclinical specimens.

PRINCIPLE AND INTERPRETATION:
Cetrimide is a quarternary ammonium compound with bactericidal activity against a broad range of Gram-positive organisms and some Gram-negative organisms.

Pseudomonas aeruginosa produces a number of water soluble iron chelators, including the yellow-green or yellow-brown fluorescent pyoverdin. When pyoverdin combines with the blue water-soluble pyocyanin, the bright green colour characteristic of Pseudomonas aeruginosa is created. The addition of magnesium chloride and potassium sulphate enhances the production of these chelators.

COMPOSITION:

Ingredients	Gr/Liter
Gelatin peptone	20 gr
Magnesium Chloride	1,4 gr
Potassium Sulphate	10 gr
Cetrimide	0,3
Agar	13,6 gr

***Formula adjusted, standardized to suit performance parameters

pH: 7,2 ± 0,2

PRECAUTIONS:
For professional use only. Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

TEST PROCEDURE:
Follow the methods and procedures stated in the appropriate standard method. Plates are usually inoculated by streak or spread method from non-selective medium or directly from the specimen. Incubate the plates at 35-37°C for up to 48 hours.

Pseudomonas aeruginosa colonies are yellow-green or yellow brown in colour and fluoresce under UV light. Presumptive identification by colonial morphology should be confirmed using further tests such as oxidase and inoculation onto media for the detection of pyoverdin and pyocyanin.

QUALITY CONTROL:
1.Sterility Control:
Incubation 48 hours at 30-35ºC and 72 hours at 20-25ºC: NO GROWTH

2.Phsical/Chemical Control
pH: 7,2 ± 0,2
Apperance: Light amber, opalescent, with precipitate

3.Microbiological Control: Incubation at 35± 2 ºC during 24-48 h

Microorganism	Inoculum (CFU)	Results	
		Growth	Reaction
Pseudomonas aeruginosa ATCC 9027	10-100	Good	Green-Yellow
Pseudomonas aeruginosa ATCC 27853	10-100	Good	Green-Brown
E.coli ATCC 25922	100-1000	Partial inhibition	Partial inhibition
S.aureus ATCC 25923	100-1000	Inhibition	Inhibition

LIMITATIONS OF THE PROCEDURE:
This prepared plated medium is intended for primary isolation. Some diagnostic tests may be performed with the primary plate. However, a pure culture is recommended for biochemical tests and serological procedures. Consult appropriate texts for further information.

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A single medium is rarely adequate for detecting all organisms of potential significance in a specimen. The agents in selective media may inhibit some strains of the desired species or permit growth of a species they were designed to inhibit, especially if the species is present in large numbers in the specimen. Cultures of specimens grown on selective media should, therefore, also be cultured on nonselective media to obtain additional information and help ensure recovery of potential pathogens.

STORAGE CONDITIONS AND SHELF LIFE:

Store the prepared medium at 2 - 12°C. Use before expiry date on the label. Do not use beyond stated expiry date.

DISPOSAL:

Incubated prepared medium may contain active bacteria and micro-organisms. Do not open infected medium. Infected plate should be autoclaved, incinerated or opened and soaked in a chlorine-based disinfectant (liquid bleach) for 20 minutes prior to disposal.

PACKAGING:

Katalog Number: 02005
Packaging: Single wrap
Content: 10 plates/each package

REFERENCES:

1. The United States Pharmacopeial Convention. 2008. The United States Pharmacopeia 31/National Formulary 26 – 2008. United States Pharmacopeial Convention, Rockville, Md.
2. European Pharmacopoeia, 5th Ed. European Directorate for the quality of medicine, Council of Europe, 226 Avenue de Colmar BP907-, F-67029 Strasbourg Cedex 1, France.
3. Japanese Pharmacopoeia, Fifteenth ed. Online.
4. King, E.O, M.K. Ward and D.E. Raney. 1954. Two simple media for the demonstration of pyocyanin and fluorescin. J. Lab. Clin. Med. 44:301-7.
5. Lowbury, E.J. 1951. Improved culture methods for the detection of Pseudomonas pyocyanea. J. Clin. Pathol. 4:66-72.
6. Lowbury, E.J. and A.G. Collins. 1955. The use of a new cetrimide product in a selective medium for Pseudomonas pyocyanea. J. Clin. Pathol. 8:47-8.
7. Brown, V.I. and E.J. Lowbury. 1965. Use of an improved cetrimide agar medium and other culture methods for Pseudomonas aeruginosa. J. Clin. Pathol. 18:752-6.