22470 Cetrimide Agar (Pseudomonas Selectice Agar Base)

Cetrimide Agar is a solid selective medium used for the isolation and identification of *Pseudomonas aeruginosa* from different material, modified acc. to Brown and Lowbury (1965).
Cetrimide inhibits bacterial growth except *Pseudomonas aeruginosa* and enhances fluorescein and pyocyanin pigment production.

Composition:

Ingredients	Grams/Litre
Gelatine peptone	20.0
Magnesium chloride	1.4
Potassium sulfate	10.0
Cetrimide	0.3
Agar	15.0

Final 7.2 ± 0.2 pH (at 25 °C)

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:
Dissolve 46.7 g in 990 ml distilled water and add 10 ml glycerol (Cat. No. 49767). Sterilize by autoclaving at 121°C for 15 minutes.

Principle and Interpretation:
Cetrimide Agar is used as a selective medium for the isolation of *Pseudomonas aeruginosa* from pus, sputum and drains etc. Also used for determining the ability of an organism to produce fluorescein and pyocyanin (Antibiotica). Cetrimide (Cetyltrimethylammonium bromide; Cat. No. 52370) is incorporated in the medium to inhibit bacteria other than Pseudomonas aeruginosa. It acts as a quaternary ammonium compound, cationic detergent which causes nitrogen and phosphorus to be released from bacterial cells other than Pseudomonas aeruginosa. For the isolation of Pseudomonas aeruginosa, plates of Cetrimide Agar should be inoculated from non-selective medium such as Brain Heart Infusion Broth (Cat. No. 70138) or Tryptone Soya Broth (Cat. No. 22092). If the count is high the test sample can be directly inoculated onto this medium. *Pseudomonas aeruginosa* colonies may appear pigmented blue, bluegreen or nonpigmented.

Cultural characteristics after 24 hours at 35-37ºC.

Organisms (ATCC)	Growth	Pigmentation
Pseudomonas aeruginosa (27853)	+	+
Pseudomonas putida (12633)	+	-
Xanthomonas maltophilia (13637)	-	-
Escherichia coli (25922)	- or partial	-

References:
1. Brown, V.I., Lowbury, E.J.L. 1965 Use of an improved cetrimide agar medium and of culture methods for Pseudomonas aeruginosa J. Clin. Pathol. 18: 752
2. King, E.O., M.K. Ward, D.E. Raney. 1954 Two simple media for the demonstration of pyocyanin and fluorescein. J. Lab. Clin. Med. 44:301-307
3. Lennette, E.H., Ballows, A., Hausler, W.J.Jr., and Shadomy, H.J. Manual of Clinical Microbiology. 4th ed. 1985 Washington D.C.: American society for Microbiology.
4. Mac Faddin, Jean F., Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria Vol.1 1985 Baltimore, MD. Williams & Wilkins.
5. Washington, J.A. Laboratory Procedures in Clinical Microbiology 1981. Springer-Verlag, New York.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

The vibrant M, Millipore, and Sigma-Aldrich are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates. Detailed information on trademarks is available via publicly accessible resources.
© 2018 Merck KGaA, Darmstadt, Germany and/or its affiliates. All Rights Reserved.