

## 14521 Cetrimide Agar Plates

A solid culture medium for selective isolation of *Pseudomonas aeruginosa*. Prepared medium used for water analysis. 55 mm plates in blister packs. Each blister pack comes in a sealed flowpack bag. This kind of packaging avoids fast dehydration and contamination. Recommended by the "Schweizerisches Lebensmittelbuch" 5<sup>th</sup> ed., chapter 56A. 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
Glycerol	10.0 ml/l
Cetrimide	0.3
Agar	13.0
Final pH (at 37 °C)	7.2 ± 0.2

One package contains 30 plates (plate diam. 55mm). Store at room temperature, protected from direct light.

### Principle and Interpretation:

Cetrimide Agar is used as a selective medium for the isolation of *Pseudomonas aeruginosa* from water, pus, sputum and drains etc. Also used for determining the ability of an organism to produce fluorescein and pyocyanin (Antibiotica). Cetrimide (Cetyltrimethylammonium bromide) 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 (Fluka 70138) or Tryptone Soya Broth (Fluka 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 35-37 °C.

Organisms (ATCC)	Growth	Pigmentation
<i>Pseudomonas aeruginosa</i> (27853)	+	+
<i>Pseudomonas putida</i> (12633)	+	-
<i>Staphylococcus aureus</i> (25923)	-	-
<i>Xanthomonas maltophilia</i> (13637)	-	-
<i>Escherichia coli</i> (25922)	- or partial	-

### References:

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4. Mac Faddin, Jean F., Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria Vol.1, Baltimore, MD. Williams & Wilkins (1985)
5. Washington, J.A. Laboratory Procedures in Clinical Microbiology Springer-Verlag, New York (1981)