

**Product :  
CETRIMIDE AGAR (PSEUDOMONAS  
SELECTIVE AGAR)**
**Also known as**

Pseudosel; Pseudomonas Selective Medium; Pseudomonas Selective Agar Base

**Specification**

Solid culture medium for selective isolation of *Pseudomonas aeruginosa*, according to the Pharmacopeial Harmonized Method and ISO standards.

**Formula \* in g/L**

Gelatin peptone .....	20.0
Magnesium chloride .....	1.4
Potassium sulphate .....	10.0
Cetyl-trimethylammoniumbromide.....	0.3
Agar .....	13.6

Final pH 7.2 ±0.2 at 25 °C

\* Adjusted and /or supplemented as required to meet performance criteria

**Directions**

Suspend 45.3 g of powder in 1 L of distilled water and add 10 mL of glycerol. Bring to the boil and distribute into suitable containers. Sterilize in the autoclave at 121°C for 15 minutes.

**Description**

The Cetrimide Agar is based on the resistance of *P. aeruginosa* strains to Quaternary Ammonium Compounds (QAC's). With Cetyltrimethyl-Ammonium Bromide a growth at concentrations of 1g/L has been achieved, but has been very poor and slow.

An inhibitor concentration of 0,2-0,3 g/L does not seem to affect the viability of pyogenic species. But it does inhibit the accompanying bacteria, both Gram positive and Gram negative organisms. Other species of *Pseudomonas* which may develop at lower inhibitory concentrations are also inhibited.

With an incubation of 18-72 hours at 30-35 ° C, there is an important predominance of *Ps. aeruginosa* is remarkable against any other resistant microbe, it is recommended that the first isolation be carried out at 42 ° C, with a prolonged incubation at 48 hours, since in these cases the inhibition of the other microorganisms is almost total.

**Technique**

Proceed according to current national or international standards, established and tested protocols or according to the procedures established and accepted in each laboratory.

**Quality control**

**Incubation temperature:** 30-35°C

**Incubation time:** 18-72 h

**Inoculum:** Practical range 50-100 CFU (Productivity), 10<sup>3</sup>-10<sup>4</sup> CFU (Selectivity) acc. to Ph. Eur. and ISO 11133:2014/Amd 1:2018 & Amd 2:2020

Microorganism	Growth	Remarks
<i>Escherichia coli</i> ATCC® 8739	Inhibited	Selectivity
<i>Pseudomonas aeruginosa</i> ATCC® 9027	Productivity > 0.50	Green-Yellowish to dark green
<i>Pseudomonas aeruginosa</i> ATCC® 27853	Productivity > 0.50	Green-Yellowish to dark green
<i>Pseudomonas aeruginosa</i> ATCC® 10145	Productivity > 0.50	Green-Yellowish to dark green

**References**

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- BROWN, V.I. & J.L. LOWBURY (1965) Use of an improved Cetrimide Agar Medium and of culture methods for *Pseudomonas aeruginosa*. J. Clin. Path. 18:752.
- COLIPA (1997) Guidelines on Microbial Quality Management (MQM). Brussels.
- EUROPEAN PHARMACOPOEIA 11.0 (2023) 11th ed. § 2.6.13. Microbiological examination of non-sterile products: Test for specified microorganisms. Harmonised Method. EDQM. Council of Europe. Strasbourg.
- FDA (Food and Drug Administrations) (1998) Bacteriological Analytical Manual. 8th ed. Rev. A. AOAC International. Gaithersburg. VA.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- ISO 22717 Standard (2015) Cosmetics - Microbiology - Detection of *Pseudomonas aeruginosa*.
- LOWBURY, E.J.L. & A.G. COLLINS (1955) The use of a new cetrimide product in a selective medium for *Pseudomonas aeruginosa* J. Clin. Path. 8:47.
- USP 33 - NF 28 (2011) <62> Microbiological examination of non-sterile products: Test for specified microorganisms. Harmonised Method. USP Corp. Inc. Rockville. MD. USA.

**Storage**

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 °C to 30 °C).