

TECHNICAL DATA SHEET

Article No. 9783

Cetrimide Agar Ph. Eur.

SYNONYMS

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 the ISO standard.

FORMULA* IN G/L

Gelatin peptone	20.00
Magnesium chloride	1.40
Potassium sulphate	10.00
Cetyltrimethyl -ammonium bromide	0.30
Agar	13.60

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. Heat to boiling and distribute into suitable containers. Sterilize by autoclaving 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 1 g/l has been achieved, but it 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.

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Amtsgericht Stuttgart / HRB-Nr. 252035
Geschäftsführer: Lutz-Alexander Geyer / Thomas Roth

With an incubation of 18-72 hours at 30-35 °C, there is a remarkable predominance of *P. aeruginosa* against any other resistant microbe. It is recommended that the first isolation is 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.

QUALITY CONTROL

- Incubation temperature: 30-35 °C
- Incubation time: 18-72 h
- Inoculum: Practical range 50-100 CFU (productivity), according to Ph. Eur. and ISO 11133:2014. Membrane filter or spiral plate method.

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

- ATLAS, R.M. and L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press Inc. Boca Raton, Fla
- 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 8.0 (2014) 8th 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 Administration) (1998) Bacteriological Analytical Manual. 8th ed. Rev. A. AOAC International. Gaithersburg. VA.
- ISO 11133:2014. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- ISO 22717:2006 Standard. Cosmetics - 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

Keep tightly closed, away from light, in a dry place (4-30 °C).

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SHELF LIFE

4 years from date of production.

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