

Cetrimide Agar + Neutralizing

Selective medium for detection of *Pseudomonas aeruginosa* with inactivation of disinfectants.

TYPICAL FORMULA	(g/l)
Pancreatic Digest of Gelatin	20.0
Magnesium Chloride	1.4
Dipotassium Sulfate	10.0
Cetrimide	0.3
Agar	13.6
Glycerol	10.0 ml
Histidine	1.0
Lecithin	0.7
Polysorbate 80	5.0
Sodium Thiosulfate	0.5
Final pH 7.2 ± 0.2	

DESCRIPTION

Cetrimide Agar + Neutralizing is a selective medium in RODAC (Replicate Organism Detection and Counting) plates used for environmental and personnel hygiene monitoring with inactivation of disinfectants.

The composition of the base culture medium complies with the recommendations of the harmonized method in the United States Pharmacopoeia (USP), European Pharmacopoeia (EP) and Japanese Pharmacopoeia (JP) for use in the examination of non-sterile products for specific microorganisms.

PRINCIPLE

Pancreatic digest of gelatin provides amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Magnesium chloride and potassium sulfate enhance the production of water-soluble pigments, pyoverdine (fluorescein) and pyocyanin, which combine to yield the bright green color characteristic of *P. aeruginosa*. Cetrimide (cetyltrimethylammonium bromide) is the selective agent with bactericidal activity against a broad range of Gram-positive organisms and some Gram-negative bacteria. Agar is the solidifying agent. Glycerol is a source of carbon. Histidine inactivates aldehydes. Lecithin neutralizes quaternary ammonium compounds. Polysorbate 80 (Tween 80) is effective against phenolic compounds and mercurial derivatives. Sodium thiosulfate neutralizes halogen compounds.

TECHNIQUE

For active air monitoring, insert the plate without the lid in an air sampler and draw a volume of air from 100 to 1000 liters.

For surfaces and personnel hygiene monitoring, such as for sampling of clothing and face masks, firmly press the agar medium against the test area for about 10 sec

Incubate the plates aerobically at 30-35°C for 18-72 hours.

INTERPRETATION OF RESULTS

Pseudomonas aeruginosa cultivates with yellow-green to blue-green colonies which fluoresce under UV light.

Pigment production along with a positive oxidase reaction (ref. 88029) typically identify *P. aeruginosa*. However, some strains of *P. aeruginosa*, particularly the mucoid ones, may not produce pyocyanin, as well as displaying a slow oxidase reaction and may therefore require further tests to confirm identification.

STORAGE

10-25°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product must be used by properly trained operators only.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

REFERENCES

- Public Health England. UK Standards for Microbiology Investigations. Identification of *Pseudomonas* species and other Non-Glucose Fermenters. Issued by the Standards Unit, Microbiology Services, PHE. Bacteriology – Identification, ID 17. Issue no: 3, issue date: 13.04.15.
- European Pharmacopoeia 6.5 (2009) 2.6.13. Microbiological examination of non-sterile products: Test for specified microorganisms.
- United States Pharmacopoeia 32 NF 27 (2009) <62> Microbiological examination of non-sterile products: Test for specified microorganisms.
- Japanese Pharmacopoeia 4.05 (2008) Microbiological examination of non-sterile products: Test for specified microorganisms.
- 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.
- Lowbury, E. J. L., and A. G. Collins (1955) The use of a new cetrimide product in a selective medium for *Pseudomonas aeruginosa*. J. Clin. Pathol. 8:47.



LIOFILCHEM® S.r.l.

Via Scozia, Zona Ind.le - 64026, Roseto degli Abruzzi (TE) - ITALY

Tel +39 0858930745 Fax +39 0858930330 Website: www.liofilchem.net E-mail: liofilchem@liofilchem.net

PRODUCT SPECIFICATIONS

NAME

Cetrimide Agar + Neutralizing

PRESENTATION

Ready-to-use plates (55 mm) containing 17 ± 1 ml of medium

STORAGE

10-25°C

PACKAGING

Ref.	Content	Packaging
15386	20 plates	<ul style="list-style-type: none"> plates packed one by one in blister packs of two pieces five blisters wrapped in film thermally welded vacuum bag and cardboard box

pH OF THE MEDIUM

7.2 ± 0.2

USE

Cetrimide Agar + Neutralizing is a selective medium in RODAC (Replicate Organism Detection and Counting) plates used for environmental and personnel hygiene monitoring with inactivation of disinfectants

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Slightly opalescent, light amber

SHELF LIFE

9 months

QUALITY CONTROL

- Control of general characteristics, label and print
- Sterility control
48 hours and 7 days at $22.5 \pm 2.5^\circ\text{C}$, in aerobiosis
48 hours and 7 days at $32.5 \pm 2.5^\circ\text{C}$, in aerobiosis
- Microbiological control
Inoculum for productivity: 50-100 CFU
Inoculum for selectivity: 10^4 - 10^6 CFU
Incubation Conditions: 18-24 h at $32.5 \pm 2.5^\circ\text{C}$ in aerobiosis

Microorganism		Growth	Colony Colour
<i>Pseudomonas aeruginosa</i>	ATCC® 9027	Good	Yellow-green to blue-green
<i>Escherichia coli</i>	ATCC® 8739	Inhibited	---

TABLE OF SYMBOLS

 Batch code	 Do not reuse	 Manufacturer	 Use by	 Fragile, handle with care
 Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult instructions for use	



LIOFILCHEM® S.r.l.

Via Scozia, Zona Ind.le - 64026, Roseto degli Abruzzi (TE) - ITALY
Tel +39 0858930745 Fax +39 0858930330 Website: www.liofilchem.net E-mail: liofilchem@lioilchem.net