

Pseudomonas CN Medium

Product No. CM1018A

Intended Use

Used for counting *Pseudomonas aeruginosa* in natural mineral spring water by membrane filter method. (GB)

Specification 250 g

Ingredients	(g/L)
Gelatin peptone	16.0
Tryptone	10
Potassium sulfate	10
Magnesium chloride	1.4
Cetyltrimethyl ammonium bromide	0.2
Nalidixonic acid	0.015
Agar	15.0
(pH 7.1 ± 0.2)	

Additional Reagents

No

Principle and Interpretation

Peptone provides nitrogen source and carbon source for the growth of bacteria. Magnesium chloride and potassium sulfate promote the production of pyocyanin. Cetyltrimethyl ammonium bromide can selectively inhibit the growth of other bacteria. Agar is a coagulant. Cetyltrimethyl ammonium bromide is a quaternary ammonium cationic detergent, which can release nitrogen and phosphorus of non-pyocyanobacterium *aeruginosa* bacteria from cells and interfere with their metabolic activities, thus inhibiting the growth of non-pyocyanobacterium *aeruginosa* bacteria, but it has no effect on the growth of pyocyanobacterium *aeruginosa*, so it can be isolated. Nalidixone acid inhibits gram-negative bacteria except *pseudomonas aeruginosa*. Glycerin is an energy source and also boosts production of pyocyanin.

Directions

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Suspend 52.6 g of the powder in 1 L of distilled water, add 10mL glycerin. Heat with frequent agitation and boil to dissolve completely. Autoclave at 121 °C for 15 minutes. Cool to approximately 50°C, mix thoroughly and pour into sterile petri dishes (medium thickness at least 5mm).

Precautions

No

Quality Control

Microorganisms	Method	Incubation	Growing status	Characteristic colony morphology
<i>Pseudomonas aeruginosa</i> ATCC 15442	Qualitative	36°C±1°C 24h±2h	Grown well	White colony, fluorescent at 366nm UV light
<i>Pseudomonas aeruginosa</i> ATCC 10145			Grown well	Blue-green colonies
<i>Klebsiella pneumoniae</i> ATCC 13882			Inhibition	---
<i>Enterobacter cloacae</i> ATCC 23355			Partial inhibition	Partial inhibition
<i>Listeria monocytogenes</i> ATCC 19115			Inhibition	---

Storage Conditions

Keep container tightly closed and store in a cool dry place.

Shelf Life

3 years.

Related Products

Product No.	Product Name	Specification
PB034	Pseudomonas CN Medium Plate	20 Plates

For laboratory use in industry or R&D purpose. Not for drug, household or other uses.