

Technical Information

Milk Agar with Cetrимide (Twin Pack)

Product Code: DM 2273S

Application: - Milk Agar with Cetrимide is recommended for detection and enumeration of *Pseudomonas aeruginosa* in water. It is recommended by BIS.

Composition**

Ingredients	Gms / Litre
Part A	
Skim milk powder	100.000
Part B	
Peptic digest of animal tissue	2.500
Sodium chloride	1.250
Yeast extract	0.750
Cetrимide	0.300
Agar	15.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Milk Agar with Cetrимide is formulated and recommended by BIS ⁽¹⁾ for detection and enumeration of *Pseudomonas aeruginosa* from water. *Pseudomonas aeruginosa* is the only species of *Pseudomonas* or gram negative rod known to excrete pyocyanin are identified by their pigment i.e. pyocyanin production. This bacteria hydrolyzes casein and produces a yellow to green diffusible pigment. Subculture a loopful of culture medium from Asparagine Proline Broth (DM2192) tubes showing either growth or fluorescence on Milk Agar plates and examine for pigment production. Peptic digest of animal tissue, yeast extract and skim milk provide nitrogen, sulphur, vitamins and other growth nutrients. Sodium chloride maintains osmotic equilibrium. Cetrимide (Cetyl trimethylammonium bromide) is a quaternary ammonium compound which inhibits a wide variety of microorganisms including *Pseudomonas* species other than *Pseudomonas aeruginosa*.

Methodology

Suspend 19.8 grams of Part B medium in 250 ml of distilled water. Shake well & heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 20 minutes. Suspend 100 grams of Part A medium in 750 ml of distilled water. Sterilize by autoclaving at 15 lbs pressure (121°C) for 5 minutes. After autoclaving cool both the parts to 50°C. Aseptically add Part A solution to Part B solution, mix well and pour into sterile Petri plates.

Quality Control

Physical Appearance

Part A : White to cream homogeneous free flowing powder

Part B : Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Cream coloured opalescent gel forms in Petri plates.



Dehydrated Culture Media
Bases / Media Supplements

Reaction

Reaction of 1.98% w/v aqueous solution of Part B at 25°C. pH : 7.3±0.2

pH range 7.10-7.50

Cultural Response/Characteristics

DM2273S: Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Pigment
<i>Escherichia coli</i> ATCC 25922	>10 ³	Inhibited	0%	
<i>Pseudomonas aeruginosa</i> ATCC 27853	50-100	Good-Luxuriant	>=50%	Blue green
<i>Stenotrophomonas maltophilia</i> ATCC 13637	>10 ³	Inhibited	0%	

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1 .International Organization for Standardization (ISO), Draft ISO/DIS 83 60-1:1988

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
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