



Technical Data

HiFluoro Pseudomonas Agar Base

M1469

HiFluoro Pseudomonas Agar Base is recommended for selective isolation of *Pseudomonas aeruginosa* from clinical and non-clinical specimens by fluorogenic method.

Composition**

Ingredients	Gms / Litre
Pancreatic digest of gelatin	18.000
Magnesium chloride	1.400
Potassium sulphate	10.000
Cetrimide	0.300
Fluorogenic mixture	2.050
Agar	15.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 46.75 grams in 1000 ml distilled water containing 10ml glycerol. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Pseudomonas aeruginosa (also known as *Pseudomonas pyocyanea*) is a gram-negative, aerobic, rod-shaped bacterium. Like other Pseudomonads, *P. aeruginosa* secretes a variety of pigments, including pyocyanin (blue-green), fluorescein (yellow-green and fluorescent), and pyorubin (red-brown). King et al developed Pseudomonas Agar P (i.e. King A media) for enhancing pyocyanin and pyorubin production and Pseudomonas Agar F (i.e. King B media) for enhancing fluorescein production (1). HiFluoro Pseudomonas Agar Base is devised based on the formula described by King et al. (1) except fluorogenic mixture. It is used as the selective medium for the isolation of *P. aeruginosa* from pus, sputum and drains etc.

Cetrimide (Cetyltrimethylammonium bromide) is incorporated in the medium to inhibit bacteria other than *P. aeruginosa*. It acts as a quaternary ammonium compound, cationic detergent that causes nitrogen and phosphorus to be released from bacterial cells other than *P. aeruginosa*. *P. aeruginosa* cleaves the fluorogenic compound to release the fluorogen which produces a visible fluorescence under long wave UV light.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Light amber coloured, opalescent gel with slight precipitate forms in Petri plates

Reaction

Reaction of 4.67 % w/v aqueous solution at 25°C. pH : 7.2±0.2

pH

7.00-7.40

Cultural Response

M1469: Cultural characteristics observed after an incubation at 35-37°C for 24- 48 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Fluorescence (under uv)
<i>Pseudomonas aeruginosa</i> ATCC 27853	50-100	good-luxuriant	≥50%	positive

<i>Stenotrophomonas maltophilia</i> ATCC 13637	$\geq 10^3$	inhibited	0%
<i>Staphylococcus aureus</i> ATCC 25923	$\geq 10^3$	inhibited	0%
<i>Escherichia coli</i> ATCC 25922	$\geq 10^3$	inhibited	0%

Storage and Shelf Life

Store dehydrated and prepared medium at 2-8°C. Use before expiry period on the label.

Reference

1.King, Ward and Raney, 1954, J. Lab. Clin. Med., 44:301.

Revision : 1 / 2011



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