HiFluoro™ Pseudomonas Agar Base

Recommended for selective isolation of *Pseudomonas aeruginosa* from clinical and non-clinical specimens by fluorogenic method.

M1469

Composition **

Ingredients	Grams/Litre
Gelatin peptone	18.00
Magnesium chloride	1.40
Potassium sulphate	10.00
Cetrimide	0.30
Fluorogenic mixture	2.05
Agar	15.00

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 10 ml glycerol. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. 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.

Type of specimen

Clinical samples - Pus, Sputum, Drains ; Water samples

Specimen Collection and Handling

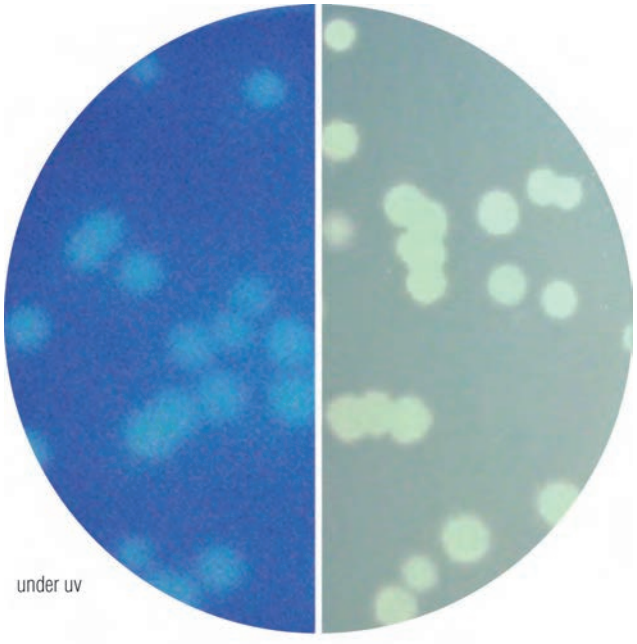
For Clinical samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (2, 3).

For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (4).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinincal specimens. Safety guidelines may be referred in individual safety data sheets



P. aeruginosa

M1469 HiFluoro™ Pseudomonas Agar Base

HiCromeVeg™ Single Streak Rapid Differentiation Series *Freedom from BSE / TSE worries*

HiFluoro™ Pseudomonas Agar Base (M1469) is also available as HiFluoro™ Pseudomonas HiVeg™ Agar Base (MV1469) wherein all the animal origin nutrients have been replaced by vegetable based nutrients.

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Limitations

1. Due to variable nutritional requirements, some strains may show poor growth on this medium.
2. Slight colour variation may be observed depending upon strains

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the recommended temperature.

Quality Control

Appearance of powder : Cream to yellow coloured, 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

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Fluorescence
Pseudomonas aeruginosa (27853) (00025*)	50-100	good-luxuriant	≥50%	+
Escherichia coli (25922) (00013*)	≥10^3	inhibited	0%	-
Stenotrophomonas maltophila (13637)	≥10^3	inhibited	0%	-
Staphylococcus aureus subsp aurreus (25923) (00034*)	≥10^3	inhibited	0%	-

Key : * Corresponds to WDCM number

Storage and Shelf-life

Store between 2-8°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle inorder to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Use before expiry date on the label.

Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (2, 3).

References

1. King, Ward and Raney, 1954, J. Lab. Clin. Med., 44:301.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
3. Jorgensen,J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1
4. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C