Pseudomonas Agar Medium for Detection of Fluorescein

Intended Use
Pseudomonas Agar Medium for detection of Fluorescein is a medium used for enhancement of fluorescein production by *Pseudomonas* species.

Summary
Pseudomonas species may produce water-soluble pigments in culture media. This property is sometimes used as a characteristic for the taxonomic classification of different species of *Pseudomonas*. Most strains of *P. aeruginosa* produce pyocyanin (blue) or pyoverdin (Yellow) or both, as well as pyorubrin (red), pyomelanin (Brown), or various combinations of these pigments.
P. aeruginosa and other *Pseudomonas* isolated from humans often produce water soluble fluorescent pigments; pyoverdin is also one of these. Fluorescent pigment-producing strains fluoresce under short-wave ultraviolet light. The fluorescence of *Pseudomonas* is best observed at 254 nm.
Pseudomonas Agar (for fluorescein) is a modification of formulation described by King *et al.,* This medium is recommended by USP for use in Microbial Limit Tests.

Principle
Pancreatic digest of casein and Peptic digest of animal tissue provide nutrients, carbon, sulphur and trace elements for growth. The equal proportion of pancreatic digest of casein and peptic digest of animal tissue is helpful for fluorescin production by *Pseudomonas*.
Dibasic potassium phosphate serves as the buffer. Magnesium sulphate enhance fluorescin production. Glycerol, as an energy source, also increases fluorescin production. Agar is the solidifying agent.

Formula*

Ingredients	**g/L**
Pancreatic Digest of Casein	10.0
Peptic Digest of Animal Tissue	10.0
Anhydrous Dibasic Potassium Phosphate	1.5
Magnesium Sulphate	1.5
Agar	15.0
Final pH (at 25°C)	7.2 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Specimen Collection and Handling
For clinical samples follow appropriate techniques for handling specimens as per established guidelines.
For food and dairy samples, follow appropriate techniques for handling specimens as per established guidelines.
For water samples, follow appropriate techniques for handling specimens as per established guidelines and local standards.
Specimens should be obtained before antimicrobial agents have been administered.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend the 37.23 g of the powder in 990 mL purified / distilled water.
2. Add 10 mL of glycerol and mix thoroughly.
3. Boil with frequent agitation to dissolve the powder completely.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control
Dehydrated Appearance: Light yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Light yellow to yellow coloured, slightly opalescent gel forms in petridishes.

Growth Promotion Test: Growth promotion is carried out in accordance with the method of USP and growth is observed after an incubation at 30°C-35°C for 18-24 hours.
Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤ 100 cfu of appropriate microorganism at 30°C-35°C for 18 hours.
Indicative Properties: The test results observed are within the specified temperature and time, inoculating ≤100 cfu of appropriate microorganism.

Organism (ATCC)	Growth	Colour of colony	Flourescence in UV light
Pseudomonas aeruginosa (9027)	Good	Greenish yellow	Positive
Pseudomonas aeruginosa Strain Boston 41501 (27853)	Good	Greenish yellow	Positive

Note: For Good growth - Growth obtained on test media should not differ by a factor greater than 2 from calculated value for a standardized inoculum.

Interpretation of Results

1. Examine growth under short wavelength UV light (254nm) for fluorescin.
2. Presence of fluorescin is appear with a greenish yellow fluorescent pigment in the colonies and surrounding medium.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

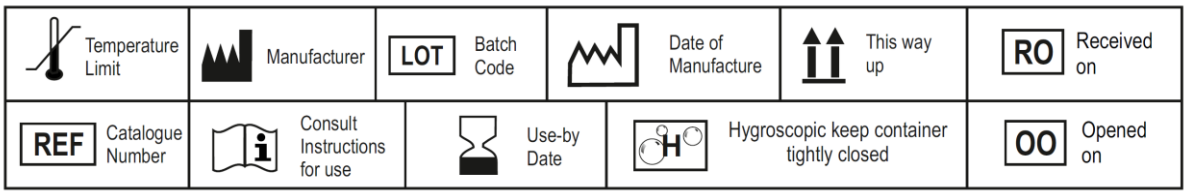
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

References

1. Garibaldi J.A. Journal of Bacteriology, Nov. 1967.1296-1299.
2. Judy A. Daly, Boshard R. and John M. Masten, Journal of clinical Microbiol. June 1984, 742-743.
3. Diagnostic Microbiology, Bailey and Scott,9th Ed., Mosby 1994, Ellen Jo Baron, Lance R. Peterson.
4. Data on File: Microxpress®, A division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201160320100	Dehydrated Culture Media	100 g
201160320500	Dehydrated Culture Media	500 g



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Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.