Pseudomonas Isolation Agar Base

Intended Use
Pseudomonas Isolation Agar Base is used for selective isolation and identification of *Pseudomonas aeruginosa* from clinical and non-clinical specimens.

Summary
Pseudomonas aeruginosa is an important human pathogen commonly found in nosocomial infections. It successfully combines adaptability to a variety of moist environments with a collection of potent virulence factors. *Pseudomonas* infections usually occur at any site where moisture tends to accumulate e.g. tracheostomies, in-dwelling catheters, burns, the external ear and weeping cutaneous wounds. *Pseudomonas* Isolation Agar Base, used for the selective isolation and identification of *P. aeruginosa*, is a modification of Medium A, originally formulated by King, Ward and Raney. The medium contains pigment-enhancing components and the selective agents, triclosan which selectively inhibits non-pseudomonas. The pigment-enhancers i.e. potassium sulphate and magnesium chloride enhance the blue or blue-green pigment production by *P. aeruginosa*, thus aiding in its identification.

Principle
Peptic digest of animal tissue provides nitrogenous compounds and other essential growth nutrients. Glycerol is a source of energy and promotes pyocyanin i.e. pigment production which is characteristic of *Pseudomonas*. Potassium sulphate and magnesium chloride enhance pyocyanin production. Triclosan selectively inhibits gram-positive and gram-negative bacteria but *Pseudomonas* species are resistant to it.

Formula*

Ingredients	**g/L**
Peptic Digest of Animal tissue	20.0
Potassium Sulphate	10.0
Magnesium Chloride	1.4
Triclosan (Irgasan)	0.025
Agar	13.6
Final pH (at 25°C)	7.0 ± 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.

Type of Specimen
Clinical samples

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 45.03 g of the powder in 1000 mL purified / distilled water containing 20 mL glycerol.
2. Mix thoroughly.
3. Boil with frequent agitation to dissolve the powder completely.DO NOT OVERHEAT.
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: Yellow coloured, slightly opalescent gel forms in petridishes.
Cultural response: Cultural characteristics observed after an incubation of 24-48 hours at 30°C-35°C.

Organism (ATCC)	Growth
Pseudomonas aeruginosa (9027)	Good
Pseudomonas aeruginosa Strain Boston 41501 (27853)	Good
Proteus hauseri (13315)	Inhibited
Staphylococcus aureus subsp. *aureus* (25923)	Inhibited

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. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.,
2. Koneman E. W., Allen S. D., Janda W. M., Schreckenberger P. C., Winn W. C. Jr., 1992, Colour Atlas and Textbook of Diagnostic Microbiology, 4th Ed., J. B. Lippinccott Company
3. King F. O., Ward M. K. and Raney D. E., 1954, J. Lab. Clin. Med., 44 :301.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201160340500	Dehydrated Culture Media	500 g