PSEUDOMONAS ISOLATION AGAR TM 268

INTENDED USE
For selective isolation and identification of *Pseudomonas aeruginosa* from clinical and non-clinical samples.

COMPOSITION

Ingredients	Gms/Ltr
Peptic digest of animal tissue	20.000
Agar	13.600
Potassium sulphate	10.000
Magnesium chloride	1.400
Triclosan (Irgasan)	0.025

PRODUCT SUMMARY AND EXPLAINATION

Pseudomonas isolation agar is used for selective isolation and identification of *Pseudomonas aeruginosa* from clinical and non-clinical samples. Pseudomonas Isolation Agar, used for the selective isolation and identification of *P. aeruginosa*, which is a modification of Medium A, originally formulated by King, Ward and Raney. It was developed to differentiating *Pseudomonas aeruginosa* from other Pseudomonas based on pigment formation.

PRINCIPLE
Medium contains peptic digest of animal tissue which provides the carbon and nitrogen necessary for the bacterial growth. Magnesium chloride acts as a cofactor for metabolic reactions and when together with Potassium sulphate it stimulates pyocyanin production as well. Glycerol serves as an energy source and also helps to promote pyocyanin production. Irgasan, is a selective antibacterial agent which inhibits Gram-positive and Gram- negative bacteria other than *Pseudomonas* sp. It acts as a quaternary ammonium compound, cationic detergent which causes nitrogen and phosphorus to be released from bacterial cells other than *Pseudomonas aeruginosa*. *Pseudomonas aeruginosa* breaks the fluorogenic compound to release the fluorogen which produces a visible fluorescence under long wave UV light. Agar is a solidifying agent.

INSTRUCTIONS FOR USE
1. Dissolve 45.03 grams in 1000 ml distilled water containing 20 ml glycerol.
2. Heat to boiling to dissolve the medium completely.

3. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
4. Cool to 40 - 50°C and dispense into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance Dehydrated powder: Cream to yellow colour, homogeneous free flowing powder
Appearance of the prepared medium: Yellow colour, clear to slightly opalescent gel

pH (at 25°C): 7.0 ± 0.2

CULTURE RESPONSE

Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organism	ATCC	Inoculum (CFU/ml)	Growth	Colour of colony	Recovery
Pseudomonas aeruginosa	10145	50 – 100	Luxuriant	Green	≥ 50%
Pseudomonas aeruginosa	27853	50 – 100	Luxuriant	Blue - Blue green	≥ 50%
Escherichia coli	25922	50 - 100	Inhibited	-	0%
Proteus mirabilis	25933	50 – 100	Inhibited	-	0%

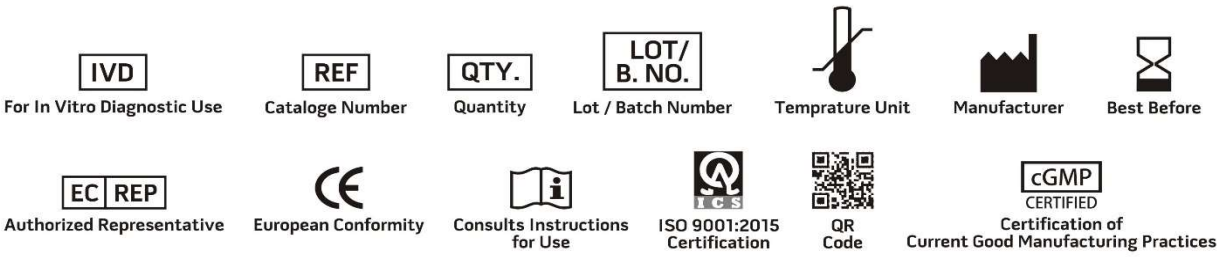
STORAGE & STABILITY

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

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. King, E.O. Ward, M.K. and Raney, D.E. (1954) Two simple media for the demonstration of pyocyanin and fluorescein. J. Lab. Clin. Med., 44, 301.
3. Finegold S. M. and Baron E. J., 1986, Bailey and Scotts Diagnostic Microbiology, 7th Ed., The C. V. Mosby Co., St. Louis.

4. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
5. Furia T. E. and Schenkel A. G., 1968, Soap and Chemical Specialties 44:47 8. Gaby W. L. and Free E., 1958, J. Bacteriol., 76:442



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.