PSEUDOMONAS F AGAR

- For in vitro use only - Catalogue No. PP91

Our Pseudomonas F Agar is used for the differentiating *Pseudomonas aeruginosa* from other pseudomonads based on fluorescein production.

Pseudomonas F Agar was a medium developed by King, Ward, and Raney that improved fluorescein production by *Pseudomonas* species. The medium contains pancreatic digest of casein, and peptic digest of animal tissue which provides the organism with nitrogen, amino acids, vitamins, and other trace elements important for growth. Glycerol is added as an alternative carbon source. Magnesium sulfate is a cationic salt that acts as an activator for pigment production, but the presence of dipotassium phosphate stimulates fluorescein production while inhibiting pyocyanin production by *Pseudomonas.* Fluorescein is a greenish-yellow pigment that diffuses into the medium surrounding the colonies, and fluoresces under UV lighting (254nm). Pseudomonas F Agar should be used in conjunction with Pseudomonas P Agar since the determination of pyocyanin and fluorescein production can aid in the identification and differentiation between *Pseudomonas* species.

Formula per Litre of Medium

Pancreatic Digest of Casein	10.0 g
Peptic Digest of Animal Tissue	10.0 g
Magnesium Sulfate	1.5 g
Dipotassium Phosphate	1.5 g
Glycerol	10.0 g
Agar	15.0 g

pH 7.0 ± 0.2

Recommended Procedure

1. Allow plates to adjust to room temperature prior to inoculation.
2. Prepare a fresh, pure culture of *Pseudomonas*.
3. Perform a four quadrant streak to obtain well isolated colonies.
4. Incubate plates aerobically at 35°C.
5. Examine after 18-24 hours.
6. If no growth is observed, re-incubate plates for an additional 24 hours.

Interpretation of Results

Pseudomonas F Agar is used to detect pigment production by *Pseudomonas* species. *Pseudomonas* produce a variety of pigments, and fluorescein is commonly produced by *Pseudomonas aeruginosa*. If growth is observed on Pseudomonas F Agar, fluorescein production is determined by visual examination of the plates under ultraviolet lighting. A positive result is the observance of a greenish-yellow pigment in the agar which fluoresces under UV lighting. It should be noted that non-pigmented strains of *P. aeruginosa* may also be encountered.

Additional biochemical and/or serological tests should be performed on isolated colonies from pure culture in order to complete identification.

Quality Control

After checking for correct pH, colour, depth, and sterility, the following organisms are used to determine the growth performance of the completed medium.

Organism	Expected Result
Pseudomonas aeruginosa ATCC 27853	Growth, Greenish-yellow (fluorescence)
Burkholderia cepacia ATCC 25609	Growth, no pigment (no fluorescence)

Storage and Shelf Life

Our Pseudomonas F Agar should be stored away from direct light at 4 to 8°C. The medium side should be uppermost to prevent excessive accumulation of moisture on the agar surface. Under these conditions this medium has a shelf life of 8 weeks from the date of manufacture.

Ordering Information

Cat#	Description	Format
PP91	Pseudomonas F Agar [Standard 15x100-mm plate]	10/pkg

References

1. King EO, Ward MK, Raney EE. Two simple media for the demonstration of pyocyanin and fluorescein. J Lab Clin Med 1954; 44: 301.
2. Difco Manual. 11th edition. Difco Laboratories: Maryland 1998.
3. Murray, P. R., E. Baron, M. Pfaller, F. Tenover, R. Yolken. Manual of Clinical Microbiology. 7th ed. Washington: ASM, 1999.

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