PRODUCT INFORMATION

Product Type: PETRI DISHES 90mm

Cat No. PD202 - PSEUDOMONAS "F" AGAR (KING)

Intended Use:

PSEUDOMONAS AGAR F Modified King medium B is a medium used for the enhancement of fluorescein (pyoverdine) production by *Pseudomonas* species. It is primarily employed in the differentiation and identification of *Pseudomonas aeruginosa* from other members of the genus in clinical, environmental, and food samples.

Also available: PD468 - PSEUDOMONAS "F" PLUS - Pseudomonas Agar F supplemented with cephalexin, and nystatin.

Principle and Uses:

Pseudomonas Agar F, also known as King's Medium B or Flo Agar, is a modification of the formula described by King[1], Ward and Raney, it conforms to the formulation recommended by ISO16266[2] is used for the fluorescein production test for the differentiation of *P. aeruginosa*.

The medium is designed to promote the production of fluorescein, a water-soluble, yellow-green fluorescent pigment.

Peptones: The specific blend of casein and meat peptones provides essential nitrogen, vitamins, and minerals.

Phosphates: The presence of dipotassium phosphate acts as a buffer and specifically encourages the production of pyoverdine while inhibiting the production of pyocyanin.

Magnesium Sulfate: Provides necessary cations for the activation of pigment-producing enzymes.

Glycerol: Acts as a supplemental carbon source to further stimulate fluorescence.

A fluorescein-producing *Pseudomonas* will grow with yellow-green colonies, fluorescent under Ultraviolet A UV-A 315–400nm (Wood's lamp).

ISO 162665 Standard[2] recommends the fluorescein production on Pseudomonas Agar F (+) as a confirmation test of *P. aeruginosa* colonies isolated from water, together with the oxidase test (+) and the ability to produce ammonia in Acetamide Broth (+).

For laboratory and research use only.

Limitations

Non-Specific Pigments: While this medium enhances fluorescein, some strains of *P. aeruginosa* may still produce pyocyanin or pyorubin, which can mask the fluorescent results.

Confirmation Required: Fluorescence is a presumptive identification; further biochemical or serological testing is required for definitive species confirmation.

Incubation Temperature: Pigment production is often temperature-dependent; incubation at 25-30°C may yield better pigmentation than standard 37°C incubation for certain environmental strains.

Reference

1. King, Ward and Raney. 1954. J. Lab. Clin. Microbiol. 44:301.
2. ISO 16266: Water quality — Detection and enumeration of Pseudomonas aeruginosa.

Composition

Tryptone	10.0 g/L
Peptone	10.0 g/L
Dipotassium hydrogen phosphate	1.50 g/L
Magnesium sulphate	1.50 g/L
Agar	15.0 g/L
glycerol	10ml

Storage: 2-8°C
Final pH: 6.9 - 7.3
Appearance: Light to medium amber, slightly opalescent

Package contents: 10 plates in a package
Exp. Date: Printed on label and on the item.
Required materials not supplied: Laboratory equipment as required.

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Petri dishes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Petri Dishes may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.
If excessive moisture is observed, invert the bottom over an off-set lid and allow to air dry in order to prevent formation of a seal between the top and bottom of the plate during incubation. Storage Instructions: On receipt, store plates in the dark at 2–8 °C. Avoid freezing and overheating. Do not open until ready to use.

Waste Disposal
After interpretation all items should be destroyed by standard incineration methods.

Performance Testing Results:
GPT: inoculum 10-100 cfu.

TEST	ATCC	Incubation Temp. (℃)	Incubation Cond.	Reaction 1	
Pseudomonas aeruginosa	27853	33-37 ℃	Aerobic, 24 hours	Growth	Positive fluorescence under UV
Pseudomonas aeruginosa	9027	33-37 ℃	Aerobic, 24 hours	Growth	Positive fluorescence under UV

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