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# PSEUDOMONAS AGAR F

Dehydrated medium for isolation and differentation of Pseudomonas

TYPICAL FORMULA (g/L)

Peptospecial	20.0
Magnesium sulfate	1.5
Di-potassium phosphate	1.5
Agar	14.0
Final pH 7.2 ± 0.2	

#### **DESCRIPTION**

**PSEUDOMONAS AGAR F** is a dehydrated medium used for isolation and differentation of *Pseudomonas* based on the formation of fluorescein. It is recommended by Unites States of Pharmacopoeia XXIII (1995) for use in the performance of Microbial Limit Tests.

#### PRINCIPLE

The ratio of peptones in peptospecial is conducive of fluorescein production by *Pseudomonas*. These peptones contain phosphorus, which is stimulatory of fluorescin production. The addition of dipotassium phosphate increases the phosphorus content of the medium, thereby enhancing production of the fluorescent pigment. Magnesium sulfate provides essential ions for fluorescin production.

The added glycerol acts as a souce of energy and contributes to the pigment production.

#### PREPARATION

Suspend 37,0 g of powder in 990 mL of distilled or deionized water. Add 10 mL of Glycerol Supplement (code 80021). Sterilize in autoclave at 121°C for 15 minutes. Aseptically dispense into final containers.

#### **TECHNIQUE**

Specimens must first be isolated in pure culture on an appropriate medium. The isolate should be Gram-stained and examined to confirm that morphology is appropriate for *Pseudomonas*. Using a sterile loop inoculate the surface of the culture medium with several colonies. Incubate at 36± 1 °C for 18-24 hours. If the isolate fails to grow or grows slowly, reincubate at 28 ± 2 °C for 1-2 days and observe for growth and pigment production.

## INTERPRETATION OF RESULTS

Pseudomonas aeruginosa appears on Pseudomonas Agar F as colonies surrounded by a yellow to greenish-yellow zone resulting from fluorescein production. If pyocianin is also synthesized, a bright green color is produced which fluoresces under UV light.

# STORAGE

The powder is very hygroscopic: store the powder at 10-30 °C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared media at 2-8 °C.

# WARNING and PRECAUTIONS

The product is not classified as hazardous by current legislation and does not contain harmful substances in concentrations of ≥1%. The product is designed for *in vitro* diagnostic use and must be used only by properly trained operators.

## DISPOSAL of WASTE

Disposal of waste must be carried out according to national and local regulations in force.

### REFERENCES

- Blazevic, D.J., Koepcke, M.H., a. Matsen, J.M.: Incidence of identification of *Pseudomonas fluorescens* and *Pseudomonas putida* in the clinical laboratory. Appl.Microbiol., 25; 107-110 (1973).
- Brodsky, M.H., a Nixon, M.C.:Rapid Method for detection of *Pseudomonas aeruginosa* on McConkey Agar under ultraviolet light. Appl.Microbiol., 26; 219-220 (1973).
- 3. DIN Deutsches Institut fur Normung e. V.: Deutsche Einheitsverfahren zur Wasser -, Abwasser und Schlammuntersuchung. Mikrobiologisches Verfahren (Gruppe K). Nachweis von *Pseudomonas aeruginosa* (K8). DIN 38411.
- GEORGIA, F.R., a. POE, C.F.: Study of bacterial fluorescence in various media. I. Inorganic substances necessary for bacterial fluorescence. J. Bact., 22; 349 (1931).
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- 6. KING, E.O., WARD, M.K. A RANEY, D.E.: Two simple media for the demonstration of pyocyanin and fluorescin. J. Lab.Clin.Med., 44; 401-307 (1954). Unites States Pharmacopoeia XXII, Chapter "Microbial limit Tests", 1995.



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# **PRODUCT SPECIFICATIONS**

NAME

**PSEUDOMONAS AGAR F** 

**PRESENTATION** 

Dehydrated culture medium

STORAGE

10-30°C

**PACKAGING** 

Code	Content	Packaging
610309	500 gr	500 gr of powder in plastic bottle
620309	100 gr	100 gr of powder in plastic bottle

# pH OF THE MEDIUM $7.0 \pm 0.2$

USE

PSEUDOMONAS AGAR F is a dehydrated medium used for isolation and differentation of Pseudomonas based on the formation of fluorescein. It is recommended by Unites States of Pharmacopoeia XXIII (1995) for use in the performance of Microbial Limit Tests.

Refer to technical sheet of the product.

# APPEARANCE of the MEDIUM

Dehydrated medium

Appearance: free-flowing, homogeneous.

Colour: light beige.

Prepared medium

Appearance: slightly opalescent. Colour: light to medium amber.

### SHELFLIFE

4 years

# QUALITY CONTROL

Control of general characteristics, label and print

Sterility control

7 days at 25  $\pm$  1°C, in aerobiosis 7 days at 36  $\pm$  1°C, in aerobiosis

Microbiological control

Inoculum for productivity: 10-100 UFC/ml

Incubation conditions:  $36 \pm 1$ °C for 18-24 hours, in aerobiosis

Microorganism	ATCC Growth		Pigment Production		
Pseudomonas aeruginosa	27853	good/very good	Greenish-yellow		
Pseudomonas aeruginosa	9027	good/very good	Greenish-yellow		
Aeromonas hydrophila	7966	good/very good	-		
Escherichia coli	25922	good/very good	-		
Enterobacter cloacae	13047	good/very good	-		

# TABLE OF SYMBOLS

LOT Batch code	1	Temperature limitation	3	Manufacturer	Σ	Contains sufficient for <n> tests</n>	IVD	In vitro Diagnostic Medical Device
REF Catalogue number	紫	Keep away from heat	$\square$	Use by		Caution, consult accompanying documents		





Liofilchem s.r.l.

Via Scozia, Zona industriale - 64026 Roseto degli Abruzzi (Te) Italy - Tel. +39.0858930745 - Fax +39.0858930330 Web site: http://www.liofilchem.net - E-mail: liofilchem@liofilchem.net