

## PSEUDOMONAS AGAR F

Dehydrated medium for isolation and differentiation 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 differentiation 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 fluorescein 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 fluorescein production. The added glycerol acts as a source 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 pyocyanin 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

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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.
4. 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 fluorescein. 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 ± 0.2

**USE**

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**TECHNIQUE**

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.

**SHELF LIFE**

4 years

**QUALITY CONTROL**

- Control of general characteristics, label and print
- Sterility control  
 7 days at 25 ± 1°C, in aerobiosis  
 7 days at 36 ± 1°C, in aerobiosis
- Microbiological control  
 Inoculum for productivity: 10-100 UFC/ml  
 Incubation conditions: 36 ± 1°C for 18-24 hours, in aerobiosis

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

**TABLE OF SYMBOLS**

|                             |                        |              |   |  |
|-----------------------------|------------------------|--------------|---|--|
| <b>LOT</b> Batch code       | Temperature limitation | Manufacturer | Contains sufficient for <n> tests       | <b>IVD</b> <i>In vitro</i> Diagnostic Medical Device |
| <b>REF</b> Catalogue number | Keep away from heat    | Use by       | Caution, consult accompanying documents |  |



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