



PSEUDOMONAS AGAR F (FOR FLUORESCIN)

TM 266

INTENDED USE

For detection of fluorescein production by *Pseudomonas* species

COMPOSITION

Ingredients	Gms/Ltr.
Agar	15.000
Casein enzymatic hydrolysate	10.000
Proteose peptone	10.000
Dipotassium phosphate	1.500
Magnesium sulphate	1.500

PRODUCT SUMMARY AND EXPLANATION

Pseudomonas Agar (For Fluorescein) is based on the formula described by King et al and as modified in the U.S. Pharmacopeia for the detection of fluorescein production. The medium enhances the elaboration of fluorescein by *Pseudomonas* and inhibits the pyocyanin formation. The fluorescein pigment diffuses from the colonies of *Pseudomonas* into the agar and shows yellow fluorescent colouration. Some *Pseudomonas* strains produce small amounts of pyocyanin resulting in a yellow-green colouration.

A pyocyanin-producing *Pseudomonas* strain will usually also produce fluorescein. It must, therefore, be differentiated from other simple fluorescent pseudomonads by other means. Temperature can be a determining factor as most other fluorescent strains will not grow at 35°C. Rather, they grow at 25-30°C.

PRINCIPLE

The 1:1 ratio of casein to proteose peptone in *Pseudomonas* Agar F is conducive to fluorescein production by *Pseudomonas*. These peptones contain phosphorus, which is stimulatory to 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.

INSTRUCTION FOR USE

1. Dissolve 38 grams in 1000 ml distilled water containing 10 ml glycerol.
2. Gently heat to boiling to dissolve the medium completely.
3. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
4. Mix well and pour into sterile Petri plates.



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PRODUCT DATA SHEET

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Cream to yellow colour, homogeneous free flowing powder

Appearance of prepared medium: Yellow colour, clear to slightly opalescent gel

pH (at 25°C): 7.0 ± 0.2

INTERPRETATION:

Culture characteristics observed after incubation period of 18 - 48 hours at $35 \pm 2^\circ\text{C}$.

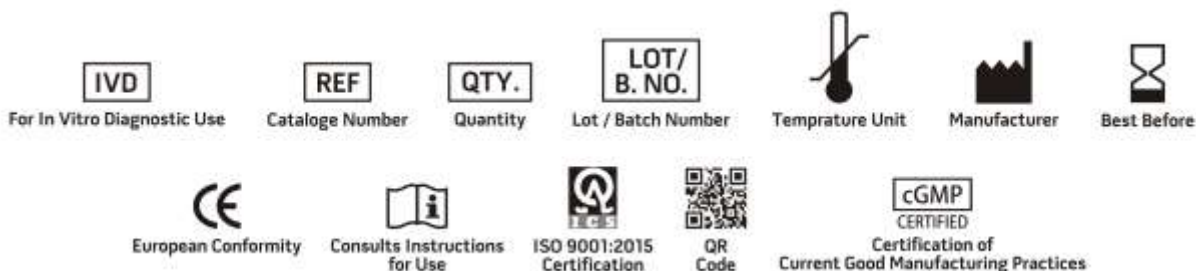
Microorganisms	ATCC	*Inoculum (CFU)	Growth	Appearance of colony	Standard recovery (%)
<i>Pseudomonas aeruginosa</i>	9027	50-100	Luxuriant	Greenish yellow	$\geq 70\%$
<i>Pseudomonas aeruginosa</i>	27853	50-100	Luxuriant	Greenish yellow	$\geq 70\%$

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. King, E.O., Ward, M.K., and Raney, D.E. (1954) Two simple media for the demonstration of pyocyanin and fluorescin. - J. Lab. Clin. Med., 44; 301-307.
2. The United States Pharmacopoeia, 2006, USP29/NF24, The United States Pharmacopoeial Convention, Rockville, MD.
3. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.



Manufacturer Address: A- 902A, RIICO Industrial Area, Phase III, Bhiwadi-301019.



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PRODUCT DATA SHEET

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