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# TM 1712 – PSEUDOMONAS BROTH F (FOR FLUORESCEIN)

## **INTENDED USE**

For detection of fluorescien production by Pseudomonas species

## PRODUCT SUMMARY AND EXPLANATION

Pseudomonas Broth (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 a water soluble, chloroform insoluble fluorescent pigment by *Pseudomonas* species. 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.

# COMPOSITION

Ingredients	Gms / Ltr		
Tryptone	10.000		
Proteose peptone	10.000		
Dipotassium hydrogen phosphate	1.500		
Magnesium sulphate	1.500		

#### PRINCIPLE

The medium consists of Tryptone and proteose peptone which provide the essential nitrogenous nutrients, carbon, sulphur and trace elements for the growth of *Pseudomonas*. Dipotassium hydrogen phosphate buffers the medium while magnesium sulphate provides necessary cations for the activation of fluorescein production. Salt concentration exceeding 2% affects pigment production. UV illumination may be bactericidal, so make sure that there is good growth before placing culture under UV light. 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.

## **INSTRUCTION FOR USE**

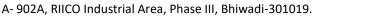
- Dissolve 23 grams in 1000 ml purified / distilled water containing 10 ml glycerol.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and dispense into tubes or as desired.

#### QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder		
Appearance of prepared medium	: Yellow coloured clear solution in tubes.		
pH (at 25°C)	: 7.0 ± 0.2		

#### **INTERPRETATION**

Cultural characteristics observed with added 1% glycerol after incubation.



# **PRODUCT DATA SHEET**



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Color of the colony	Incubation Temperature	Incubation Period
Pseudomonas aeruginosa	17934	50-100	Luxuriant	Greenish yellow	35-37°C	18-24 Hours
Pseudomonas aeruginosa	27853	50-100	Luxuriant	Greenish yellow	35-37°C	18-24 Hours
Pseudomonas aeruginosa	9027	50-100	Luxuriant	Greenish yellow	35-37°C	18-24 Hours

# PACKAGING:

In pack size of 500 gm bottles.

## STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°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.

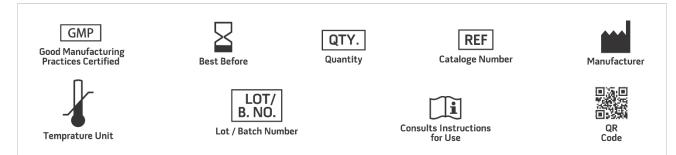
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

#### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

#### REFERENCES

- 1. King, Ward and Raney, 1954, J. Lab. Clin. Med., 44: 301.
- 2. The United States Pharmacopoeia, 2006, USP29/NF24, The United States Pharmacopeial Convention, Rockville, MD.
- 3. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. \*For Lab Use Only Revision: 08 Nov., 2019

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