

Product Data Sheet

FLUOROGENIC PSEUDOMONAS AGAR BASE (MUG PSEUDOMONAS AGAR)

Product No. GB-DCM-00376-1A

INTENDED USE

For detection of indole production by microorganisms using fluorogenic method.

PRODUCT SUMMARY

Pseudomonas aeruginosa (also known as *Pseudomonas pyocyanea*) is a gram-negative, aerobic, rod-shaped bacterium. Like other *Pseudomonas*, *P. aeruginosa* secretes a variety of pigments, including pyocyanin (blue-green), fluorescein (yellow - green and fluorescent), and pyorubin (red-brown). King et al developed *Pseudomonas Agar P* (i.e. King A media) for enhancing pyocyanin and pyorubin production and *Pseudomonas Agar F* (i.e. King B media) for enhancing fluorescein production. Fluorogenic *Pseudomonas Agar Base* is devised based on the formula described by King et al. except fluorogenic mixture. It is used as the selective medium for the isolation of *P. aeruginosa* from pus, sputum and drains etc.

Product Specifications

Ingredients	Gms / Ltr
Gelatin peptone	18.000
Magnesium chloride	1.400
Potassium sulphate	10.000
Cetrimide	0.300
Fluorogenic mixture	2.050
Agar	15.000

PRINCIPLE

The medium consists of peptone which provides necessary nutrients for the growth of microorganism. Cetrimide (Cetyltrimethylammonium bromide) is incorporated in the medium to inhibit bacteria other than *P. aeruginosa*. It acts as a quaternary ammonium compound, cationic detergent that causes nitrogen and phosphorus to be released from bacterial cells other than *P. aeruginosa*. *P. aeruginosa* cleaves the fluorogenic compound to release the fluorogen which produces a visible fluorescence under long wave UV light.



INSTRUCTION FOR USE

- Dissolve 46.75 grams in 1000 ml purified/distilled water containing 10ml 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 pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium: Light amber coloured, opalescent gel with slight precipitate forms in Petri plates.

pH (at 25°C) : 7.2± 2

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Fluorescence (under UV) addition of NaOH	Incubation Temperature	Incubation Period
Pseudomonas aeruginosa	27853	50-100	Luxuriant	>=70%	Positive	35-37°C	18-24 Hours
Stenotrophomonas maltophilia	13637	>=10 ⁴	Inhibited	0%	-	35-37°C	18-24 Hours
Staphylococcus aureus	25923	>=10 ⁴	Inhibited	0%	-	35-37°C	18-24 Hours
Escherichia coli	25922	>=10 ⁴	Inhibited	0%	-	35-37°C	18-24 Hours

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.

This product is for research use only.