

TM 1869 - KING'S MEDIUM B BROTH

INTENDED USE

For detection of pigment production by *Pseudomonas* species.

PRODUCT SUMMARY AND EXPLANATION

Pseudomonas aeruginosa is known to produce two types of pigments, pyocyanin and fluorescein which is a characteristic property and aids in isolation of *Pseudomonas* from clinical material. An additional pigment called as pyorubin was reported by King. Pyocyanin is green while fluorescein is fluorescent yellow and pyorubin is reddish brown. Some strains produce all these pigments while the others produce one or two pigments. King's Medium B is suited for fluorescein. This medium can be used as a general medium for the non-selective isolation and pigment production of *Pseudomonas* species from foods, cosmetic samples etc. Agrobacterium have been traditionally identified as Gram-negative bacteria that do not produce fluorescent pigment on King's B medium and do produce tumors (or hairy roots) when inoculated onto test plants.

COMPOSITION

Ingredients	Gms / Ltr
Proteose Peptone No. 3	20.000
Magnesium Sulphate	1.500
Dipotassium Hydrogen Phosphate	1.500

PRINCIPLE

The medium consists of proteose peptone, which provides carbonaceous and nitrogenous compounds for the growth of bacteria. Glycerol serves as a source of energy and also enhances pigment production. Magnesium sulphate also enhances pigment production. Pigments and/ or their derivatives produced by *Pseudomonas* species play a role as siderophores in the iron uptake systems of bacteria, and hence, their production is markedly enhanced under conditions of iron deficiency. The production of pigments especially non-fluorescent blue pigment, pyocyanin is readily demonstrated by culturing on King's Medium B, which contains no added iron. The addition of dipotassium phosphate increases the phosphorus content of the medium thereby enhancing production of fluorescent pigment.

INSTRUCTION FOR USE

- Dissolve 23.0 grams in 1000 ml distilled water. Add 15 mL of glycerol and mix thoroughly.
- Boil with frequent agitation to dissolve the powder completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow coloured, homogeneous, free flowing powder.
Appearance of prepared medium : Light yellow coloured, clear solution with or without any precipitate.
pH (at 25°C) : 7.2±0.2

INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Pseudomonas aeruginosa</i>	27853	50-100	Good	35 - 37°C	24-48 Hours
<i>Pseudomonas aeruginosa</i>	9027	50-100	Good	35 - 37°C	24-48 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

- King E. O., Ward M. K. and Raney D. E., 1954, J. Lab and Clin. Med., 44:301-307.
- Murray P. R., Baron E. J., Jorgensen J. H., Pfaller M. A., Tenover F. C., Tenover F. C., (Eds.), 8th Ed., 2003, Manual of Clinical Microbiology, ASM, Washington, D.C.

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative	 CE European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

***For Lab Use Only**
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