PRODUCT DATA SHEET



TM 1362 - KING'S MEDIUM A BASE

INTENDED USE

For non-selective isolation, cultivation and 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. *P. aeruginosa* can be identified on Hugh Leifson Medium. Kings Medium A Base is particularly suited for the production of pyocyanin and pyorubin.

Kings Medium A Base is based on the formulation of King et al. 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.

COMPOSITION

Ingredients	Gms / Ltr		
Proteose peptone	20.000		
Potassium sulphate	10.000		
Magnesium chloride, anhydrous	1.640		
Agar	15.000		

PRINCIPLE

These media contain 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 chloride, potassium sulphate and 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. For inoculation, use the organisms freshly cultured in Kings Medium A, incubate overnight at 37°C and then at room temperature for 6 days.

INSTRUCTION FOR USE

- Dissolve 46.64 grams in 1000 ml distilled water containing 10 ml of glycerol.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Aseptically pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

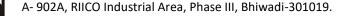
Appearance of Powder	: Cream to yellow homogeneous free flowing powder.				
Appearance of prepared medium	: Light yellow coloured, clear to slightly opalescent gel forms in Petri plates.				
pH (at 25°C)	: 7.3±0.1				

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism ATCC Inoculum (CFU/ml) Growth Recovery Pigment Incubation Incubation production Temperature Period
--

f (0) in 🔰



2

f (ơ) in



Pseudomonas aeruginosa	17934	50-100	Good- luxuriant	>=50%	Blue-green	35 - 37°C	18-24 Hours
Pseudomonas aeruginosa	27853	50-100	Good- luxuriant	>=50%	Blue-green	35 - 37°C	18-24 Hours
Pseudomonas aeruginosa	9027	50-100	Good- luxuriant	>=50%	Blue-green	35 - 37°C	18-24 Hours
Burkholderia cepacia	25609	50-100	Good- luxuriant	>=50%	No pigment	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.

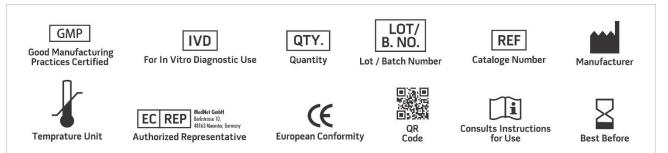
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

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



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

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