



KING'S MEDIUM B BASE

TM 1363

INTENDED USE

For isolation, cultivation and pigment production of *Pseudomonas* species

COMPOSITION

Ingredients	Gms/Ltr.
Proteose peptone	20.000
Agar	20.000
Dipotassium hydrogen phosphate	1.500
Magnesium sulphate. heptahydrate	1.500

PRODUCT SUMMARY AND EXPLANATION

Kings Medium B 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.

Pseudomonas aeruginosa is a Gram-negative bacteria belonging to the Pseudomonadaceae family, an opportunistic pathogen, which can also be found in water with low nutrient content. *Pseudomonas aeruginosa* can also be detected on the surface of plants, is however primarily known as a human pathogenic micro-organism which causes inflammation to the skin, the urinary tract, the gastrointestinal system, the respiratory tract and to bones and joints.

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 sulphate also enhances pigment production. The addition of dipotassium phosphate increases the phosphorus content of the medium thereby enhancing production of fluorescent pigment.

INSTRUCTION FOR USE

1. Dissolve 42.23 grams of dehydrated medium in 1000 ml distilled water containing 15 ml of glycerol.
2. Gently heat to boiling to dissolve the medium completely.
3. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
4. Aseptically pour into sterile Petri plates.



QUALITY CONTROL SPECIFICATIONS

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

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

pH (at 25°C): 7.2 ± 0.2

INTERPRETATION:

Culture characteristics observed after incubation period of 18 - 24 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 fluorescein. - J. Lab. Clin. Med., 44; 301-307.
2. Murray P. R., Baron E. J., Jorgensen J. H., Pfaller M. A., Tenover R. H., Tenover F. C., (Eds.), 8th Ed., 2003, Manual of Clinical Microbiology, ASM, Washington, D.C.
3. Kiska and Gilligan. 1999. In Murray, Baron, Pfaller, Tenover and Tenover (ed.), Manual of clinical microbiology, 7th ed. American Society for Microbiology, Washington, D.C



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PRODUCT DATA SHEET



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