KING B 55278

PSEUDOMONAS DIFFERENTIATION MEDIUM

IVD

1- INTENDED USE

King B medium allows detection of the synthesis of pyoverdin, a pigment produced by *Pseudomonas aeruginosa* and other *Pseudomonas* species. Used in parallel with King A medium (detection of pyocyanin), it can be used to guide the identification of *Pseudomonas aeruginosa*.

2- PRINCIPLE

The presence of magnesium sulphate provides the cations necessary for activation of pyoverdin, which gives the culture medium a fluorescent greenish yellow colour. The presence of phosphate inhibits the production of pyocyanin, a pigment specific to *Pseudomonas aeruginosa*.

3- HOW SUPPLIED

- Ready to use medium:
  25 x 7 ml tubes code 55278

4- THEORETICAL COMPOSITION (g/l of distilled water)

King B agar is prepared according to the theoretical formula described by King, Ward and Raney (1).

Peptone	20
Purified agar	12
K_2HPO_4 (anhydrous)	1.5
$MgSO_4$. 7 H_2O (anhydrous))	1.5

5- STORAGE

- Ready to use medium: store at +2-8°C.

The expiry date and batch number are indicated on the packaging.

6- INSTRUCTIONS

Material:

- Material provided: King B medium

Inoculation:

Inoculate by making a midline streak on the surface of the agar with a loop of pure, fresh culture taken from a broth or agar medium. Replace the screw-top without tightening.

Incubation:

Incubate for 24 to 48 hours at 30°C. Incubation for a longer time is useless, but cultures may be kept at room temperature (18-30°C).

Reading - Interpretation:

Pyoverdin synthesis produces a fluorescent **green** colour.

7- PERFORMANCE/QUALITY CONTROL OF THE TEST

- Appearance of the ready to use medium: **amber-coloured** clear agar.
- The growth performances of King B medium are verified with the following strains:

STRAINS	PIGMENTATION AFTER 24 - 48H at 30°C
Pseudomonas aeruginosa ATCC 27853	**Greenish yellow**
Pseudomonas aeruginosa ATCC 9027	**Greenish yellow**
Pseudomonas aeruginosa ATCC 17934	**Greenish yellow**
Pseudomonas fluorescens CIP 69.13	Faint **greenish yellow**

8- QUALITY CONTROL OF THE MANUFACTURER

All manufactured reagents are prepared according to our Quality System, starting from reception of raw material to the final commercialization of the product. Each lot is submitted to quality control assessments and is only released to the market, after conforming to pre-defined acceptance criteria. The records relating to production and control of each single lot are kept within Bio-Rad.

9- LIMITS OF USE

- Some strains of *P. fluorescens* or *P. putida* (generally derived from water or soil) only produce pyoverdin slowly. In this case, the medium must be incubated at 20°C for 2 to 3 weeks. Some of these strains can be nonpigmented.
- Some strains may not grow on this medium due to their nutritional requirements.
- Pure, fresh cultures must always be used to obtain interpretable results.
- Complementary tests must be performed to identify the species of the strain isolated.

10- REFERENCES

1. KING E.O., WARD M. et RANEY D.E.J., J. Lab. Clin. Méd., 1954, 44, p. 301.

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