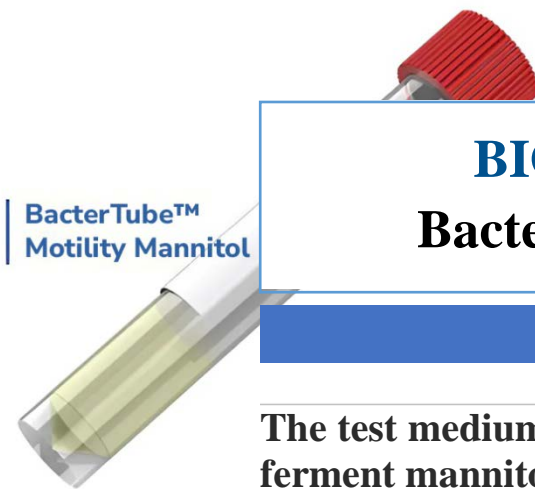


BacterLab Division



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BacterTube™
Motility Mannitol

BIOCHEMICAL MEDIUM

BacterTube™ Motility Mannitol

The test medium is used to determine motility and the ability to ferment mannitol.

Code: 08050



1. INTENDED USE

BacterTube™ Motility Mannitol is used to determine motility and the ability to ferment mannitol.

2. PRINCIPLES

BacterTube™ Motility Mannitol is used to test the motility and mannitol fermentation ability of bacteria. The role of the components in this medium is as follows: Peptone and potassium nitrate are sources of nitrogen in the medium. Mannitol, along with the pH indicator, helps distinguish bacteria that ferment mannitol as the medium changes color from red to yellow. The semi-solid nature of the medium allows for the observation of bacterial motility.

3. TYPICAL COMPOSITION

For 1 liter of medium

Peptone	20,0 g
Potassium Nitrate (KNO ₃)	3,0 g
Phenol red 1%	4,0 mL
Mannitol	10,0 g
Bacteriological agar	4,0 g

pH of the ready-to-use medium at 25°C: 7,2 ± 0,2

4. PREPARATION

- The environmental tubes are ready-to-use, no preparation required.

5. INSTRUCTIONS FOR USE

- Prior to inoculation, allow medium to equilibrate to room temperature
- Use a sterile inoculation loop to transfer a sample from an isolated colony on the agar plate into the test tube containing the medium.
- Incubate the tube at 37°C.
- Examine the tube after 18 – 24 hours of incubation.
- Observe and record the results

6. RESULTS

- Positive Reaction: Bacteria that spread beyond the inoculation line and cause turbidity in the surrounding medium.
- Negative Reaction: The bacteria only grow along the inoculation line, and the surrounding medium remains clear.

7. QUALITY CONTROL

BacterLab ensures the quality of each product batch by testing with ATCC reference strains.

Reference strains	Incubation conditions	Expected results
<i>E. coli</i> ATCC 25922	18 – 24 hours, 35 – 37°C, Aerobic	yellow and moves away from the inoculation line

<i>Shigella flexneri</i> ATCC 12022		yellow and does not move away from the inoculation line
<i>Shigella dysenteriae</i> ATCC 13313		remains red and does not move away from the inoculation line

8. STORAGE AND TRANSPORT CONDITIONS

- Storage: 2 – 8°C.
- Transportation: Ambient temperature.

9. PACKAGING

- Packaging: 50 tubes/ box or as per customer request.

10. SHELF LIFE

- Expiration Date: 6 months from the manufacturing date.

11. BIBLIOGRAPHY

- Benson, H. J. (2001). Microbiological Applications: Laboratory Manual in General Microbiology. 8th Edition, McGraw-Hill.
- Sneath, P. H. A., et al. (2006). Bergey's Manual of Systematic Bacteriology. Springer.