

CM 21157 - MANNITOL MOTILITY TEST MEDIUM (VEG.)

INTENDED USE

For studying mannitol fermentation and motility of bacteria.

PRODUCT SUMMARY AND EXPLANATION

Mannitol Motility Test Veg Medium is prepared by using Veg peptone which is free of BSE/TSE risks. Mannitol Motility Test Veg Medium like the conventional medium is designed to differentiate bacteria on the basis of their motility and ability to ferment mannitol. The highly nutritious Veg peptone supports luxuriant growth of fastidious bacteria like Staphylococci. Semisolid nature of the medium due to 0.3% agar helps to detect motility. Motile bacteria produce diffused growth throughout the medium while non-motile bacteria grow only along the line of inoculation.

COMPOSITION

Ingredients	Gms / Ltr
Veg peptone	20.0
Mannitol	2.0
Potassium nitrate	1.0
Phenol red	0.04
Agar	3.0

PRINCIPLE

The highly nutritious Veg peptone supports luxuriant growth of fastidious bacteria. Combination of mannitol and phenol red helps in differentiation of mannitol fermenting bacteria which turn the medium yellow.

INSTRUCTION FOR USE

- Dissolve 26.00 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense into test tubes.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool the tubed medium in an upright position.

QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder : Light yellow to pink homogeneous free flowing powder.
- Appearance of prepared medium : Red coloured clear to slightly opalescent gel forms in tube as butts.
- pH (at 25°C) : 7.6±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Mannitol fermentation	Motility	Incubation Temperature	Incubation Period
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Escherichia coli	35218	50-100	Luxuriant	Positive reaction, yellow colour	Positive, growth away from stabline causing turbidity	35-37°C	18-48 Hours
Proteus mirabilis	25933	50-100	Luxuriant	Negative reaction, no colour change or red	Positive, growth away from stabline causing turbidity	35-37°C	18-48 Hours
Proteus vulgaris	13315	50-100	Luxuriant	Negative reaction, no colour change or red	Positive, growth away from stabline causing turbidity	35-37°C	18-48 Hours
Salmonella serotype Typhi	6539	50-100	Luxuriant	Positive reaction, yellow colour	Positive, growth away from stabline causing turbidity	35-37°C	18-48 Hours
Shigella sonnei	25931	50-100	Luxuriant	Positive reaction, yellow colour	Negative, growth along the stabline, surrounding medium Remains clear	35-37°C	18-48 Hours
Staphylococcus aureus	25923	50-100	Luxuriant	Positive reaction, yellow colour	Negative, growth along the stabline, surrounding medium Remains clear	35-37°C	18-48 Hours
Staphylococcus epidermidis	12228	50-100	Luxuriant	Negative reaction, no colour change or red	Negative, growth along the stabline, surrounding medium Remains clear	35-37°C	18-48 Hours

PACKAGING:

Inpacksize of 100 gm and 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

