

Mannitol Motility Test Agar



Medium used for the identification and determination on the basis of mannitol fermentation.

• CONTENTS (Liter)

Peptone	20.0 g
Mannitol	2.0 g
Potassium Nitrate	1.0 g
Phenol Red	0.04 g
Agar	5.0 g
Final pH = 7.3 ± 0.2 at 25°C	

• PROCEDURE

Suspend 28.04 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into tubes.

• INTERPRETATION

Mannitol Motility Test Agar is a medium used for the identification and determination on the basis of mannitol fermentation. Peptone is the nitrogen and vitamin sources. Mannitol is a fermentable carbohydrate. Potassium nitrate provides additional nutrients. Phenol red is a pH indicator. Mannitol fermentation organisms produce acid and result in color change of phenol red indicator to yellow.

• TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 36 ± 1°C for 18 - 48 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: beige

Prepared medium

Appearance : slightly opalescent

Color: yellow to tan

Incubation conditions: 36 ± 1°C / 18 - 48 hours

Microorganism	ATCC	Inoculum CFU	Growth	Mannitol Fermentation	Motility
<i>Escherichia coli</i>	25922	50-100	good	+	+
<i>Salmonella typhimurium</i>	14028	50-100	good	+	+
<i>Klebsiella pneumoniae</i>	13883	50-100	good	+	-
<i>Staphylococcus aureus</i>	25923	50-100	good	+	-
<i>Proteus mirabilis</i>	25933	50-100	good	-	+
<i>Staphylococcus epidermidis</i>	12228	50-100	good	-	-

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

• REFERENCES

1. Tittsler and Sandholzer. 1936. J. Bacteriol. 31:575.
2. Holt, Krieg, Sneath, Staley and Williams (ed.). 1994. Bergey's Manual™ of determinative bacteriology, 9th ed. Williams & Wilkins, Baltimore, Md.
3. Farmer. 1999. *In* Murray, Baron, Pfaller, Tenover and Tenover (ed.), Manual of clinical microbiology, 7th ed. American Society for Microbiology, Washington, D.C.
4. MacFaddin. 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol. 1. Williams & Wilkins, Baltimore, Md.

• PACKAGE

Cat. No : MB-M1235 Mannitol Motility Test Agar	500 G
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