

FTM (Fluid Thioglycollate Medium) Agar



Medium used for the sterility testing of biologics and for the cultivation of anaerobes, aerobes and microaerophiles.

*Equally use with MFDS (MB-F1026K) and QIA (MB-F1026Q).

• CONTENTS (Liter)

Yeast Extract	5.0 g
Casitone	15.0 g
Dextose	5.0 g
Sodium Chloride	2.5 g
L-Cystine	0.75 g
Thioglycollic Acid	0.5 g
Agar	0.75 g
Resazurin	0.001 g

Final pH = 7.1 ± 0.2 at 25°C.

• PROCEDURE

Suspend 29.5 G of powder in 1L of distilled or deionized water. Heat to boiling until completely dissolved. Dispense in tubes. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45-50°C in water bath. Store fluid thioglycollate media at 15-30°C. If more than 30% of the medium is pink prior to use, reheat once (100°C) to drive off absorbed oxygen.

• INTERPRETATION

FTM (Fluid Thioglycollate Medium) Agar is a medium used for the sterility testing of biologics and for the cultivation of anaerobes, aerobes and microaerophiles. Yeast extract and casitone provide the growth factors necessary for bacterial growth. Dextrose is the source of energy. Thioglycollic acid and L-cystine are reducing agents that prevent the accumulation of peroxides which are lethal to some microorganisms. Sodium chloride supplies essential electrolytes for transport and maintains osmotic balance. Resazurin is an oxidation-reduction indicator, being pink when oxidized and colorless when reduced. Agar is the solidifying agent.

• TECHNIC

Inoculate the specimen with stab the middle of the medium using a sterile needle. Incubate at 36 ± 1°C for 48 ± 3 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: fine.

Prepared medium

Appearance : slightly opalescent.

Color: pale to light, yellow to tan with light pink to rose indicator on top.

Incubation conditions: 36 ± 1°C / 48 ± 3 hours

Microorganism	ATCC	Inoculum CFU	Growth
<i>Bacillus subtilis</i>	9466	50 -100	good
<i>Pseudomonas aeruginosa</i>	27853	50 -100	good
<i>Staphylococcus aureus</i>	25923	50 – 100	good
<i>Escherichia coli</i>	25922	50 – 100	good
<i>Clostridium sporogenes</i>	11437	50 – 100	good
<i>Clostridium perfringens</i>	13124	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 or until signs of deterioration are evident. Store prepared medium at 2 - 8°C.

• REFERENCES

1. Quastel and Stephenson. 1926. J. Biochem. 20:1125.
2. Falk, Bucca and Simmons. 1939. J. Bacteriol. 37:121.
3. Brewer. 1940. JAMA 115:598.
4. Marshall, Ginnish and Luxen. 1940. Proc. Soc. Exp. Biol. Med. 43:672.
5. Nungester, Hood and Warren. 1943. Proc. Soc. Exp. Biol. Med. 52:287.
6. Refer to the MFDS and the QIA.

• PACKAGE

Cat. No : MB-F1026 FTM (Fluid Thioglycollate Medium) Agar	500 G
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