Thioglycollate Agar

Medium used for the cultivation of anaerobic microorganisms.

• CONTENTS (Liter)

Casein Enzymic Hydrolysate	15.0 g
L-Cystine	0.5 g
Dextrose	5.5 g
Yeast Extract	5.0 g
Sodium Chloride	2.5 g
Sodium Thioglycollate	0.5 g
Resazurin	0.001 g
Agar	20 g

Final pH = 7.1 ± 0.2 at 25°C

• PROCEDURE

Suspend 49.0 G of powder in 1L 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 petri dishes.

• INTERPRETATION

Thioglycollate Agar is a medium used for cultivation of anaerobic microorganisms. Casein enzymic hydrolysate, dextrose, yeast extract provide nitrogen, carbon and vitamin source. Sodium chloride maintains the osmotic balance. L-Cystine and sodium thioglycollate are reducing agent that prevent the accumulation of peroxides which are lethal to some microoganisms. Resazurin is an oxidation-reducion indicator, being pink when oxidized and colorless when reduced. Agar is the solidifying agent.

• TECHNIC

Inoculate the plates with spreading the specimen on surface of medium using a sterile loop. Incubate at 35 ± 2°C for 40 - 48 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium
Appearance: free-flowing, homogeneous
Color: beige
Prepared medium
Appearance : clear to slightly opalescent
Color: light amber (oxidized condition : red)
Incubation conditions: 35 ± 2°C / 40 - 48 hours under anaerobic condition

Microorganism	ATCC	Inoculum CFU	Growth
Clostridium botulinum	25763	50-100	good
Clostridium perfringens	13124	50-100	good
Clostridium sporogenes	11437	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 or contamination are evident. Store prepared medium at 2 - 8°C.

• REFERENCES

1. The United States Pharmacopeia XXI (1985). Sterility Testing.
2. Sealey, J.Q. (1951). Thesis of the University of Texas.
3. ISO 7937: 1997-04-15. Microbiology of food and animal feeding stuffs.
4. Forbosm B.A., D.F. Sahm and A.S. Weissfeld. 2007. Bailey & Scott's diagnostic microbiology, 12th ed. Mosby, Inc. St. Louis.
5. Horwitz, W. (ed.). 2000. Official methods of analysis of AOAC International, 17th ed, vol.1. AOAC International, Gaithersburg, Md.

• PACKAGE

Cat. No : MB-T1050 Thioglycollate Agar	500 G