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Thioglycollate Agar

Recommended for cultivation of anaerobic microorganisms.

REF: BS.1/TC01.100.0100	100 Gram	REF: BS.1/TC01.250.0250	250 Gram
REF: BS.1/TC01.500.0500	500 Gram		

CLINICAL SIGNIFICANCE

Thioglycollate Agar is used for the cultivation of aerobic as well as anaerobic microorganisms in the performance of sterility tests. It is prepared based on the formula specified by US Pharmacopoeia (1) and APHA (2). Thioglycollate Agar is also recommended for the cultivation of *Clostridium species* (1) and in the culture of *Desulfotomaculum nigrificans*.

METHOD PRINCIPLE

Tryptone, yeast extract provides nitrogenous and carbonaceous compounds, vitamin B and other essential growth nutrients.
Dextrose is the fermentable carbohydrate and energy source. Resazurin is the redox indicator. Thioglycollate neutralizes the bacteriostatic effect of mercurial compounds used as the preservatives in the injection solution. If the solution used in test is a bacteriostatic ingredient then it is necessary to ascertain the bacteriostatic activity of the product.

MEDIA COMPOSITION

Item	Formula per liter of medium
-Tryptone	15.0 gm
- L-Cystine	0.500 gm
- Dextrose (Glucose)	5.50 gm
- Yeast extract	5.00 gm
- Sodium chloride	2.50 gm
- Sodium thioglycollate	0.500 gm
- Resazurin	0.001 gm
- Agar	20.0 gm

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.
  S56: dispose of this material and its container at hazardous or special waste collection point.
  S57: use appropriate container to avoid environmental contamination.
  S61: avoid release in environment.

For further information, refer to the Thioglycollate Agar material safety data sheet.

STORAGE AND STABILITY

BioScien Thioglycollate Agar should be stored between 10-30°C in a firmly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Final pH 7.1±0.2 at 25°C

PREPARATION

Suspend 49.0 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Deterioration

The color of ***BioScien*** Thioglycollate Agar is Cream to yellow homogeneous free flowing powder. Prepared Media is Light amber coloured (turning red due to aeration on standing) clear to slightly opalescent gel forms in Petri plates. If there are any physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium.

SPECIMEN

Clinical samples- Stool, Abscess; Food samples

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile tubes
- Incubator
- Autoclave

Performance Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 40-48 hours under anaerobic conditions.

Microorganisms	Growth
Clostridium botulinum *ATCC 25763*	luxuriant
Clostridium sporogenes *ATCC 11437*	luxuriant
Clostridium perfringens *ATCC 12924*	luxuriant

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact ***BioScien*** technical support.

REFERENCES

1. The United States Pharmacopoeia, 1985 21st rev. U.S. Pharmacopocial Convention, Rockville, M.D.
2. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

SYMBOLS IN PRODUCT LABELLING			
IVD	For in-vitro diagnostic use	Σ	Number of <n> test in the pack
LOT	Batch Code/Lot number	⚠	Caution
REF	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		