



## Thioglycollate Agar

M608

### Intended Use:

Recommended for cultivation of anaerobic microorganisms.

### Composition\*\*

Ingredients	g / L
Tryptone	15.000
L-Cystine	0.500
Dextrose (Glucose)	5.500
Yeast extract	5.000
Sodium chloride	2.500
Sodium thioglycollate	0.500
Resazurin	0.001
Agar	20.000
Final pH ( at 25°C)	7.1±0.2

\*\*Formula adjusted, standardized to suit performance parameter

### Directions

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.

### Principle And Interpretation

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*.

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.

### Type of specimen

Clinical samples- Stool, Abscess; Food samples

### Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (5).

After use, contaminated materials must be sterilized by autoclaving before discarding.

### Warning and Precautions :

In Vitro diagnostic Use only. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets

### Limitations :

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

### Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 2.0% Agar gel.

**Colour and Clarity of prepared medium**

Light amber coloured (turning red due to aeration on standing) clear to slightly opalescent gel forms in Petri plates.

**Reaction**

Reaction of 4.9% w/v aqueous solution at 25°C. pH : 7.1±0.2

**pH**

6.90-7.30

**Cultural Response**

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

Organism	Inoculum (CFU)	Growth	Recovery
<i>Clostridium botulinum</i> ATCC 25763	50-100	luxuriant	≥50%
<i>Clostridium perfringens</i> ATCC 12924	50-100	luxuriant	≥50%
<i>Clostridium sporogenes</i> ATCC 11437	50-100	luxuriant	≥50%

**Storage and Shelf Life**

Store between 10-30°C in a tightly 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 prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in 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.

**Disposal**

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

**Reference**

1. The United States Pharmacopoeia-National Formulary (USP-NF), 2022.
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.

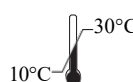
Revision : 05/2024



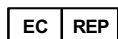
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