Thioglycollate Broth

LQ007

Intended Use

Recommended for the recovery of anaerobic and facultative microorganisms. *Sterile, in glass bottles.*

Composition**

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

**Formula adjusted, standardized to suit performance parameters

Directions

Label the ready to use blood culture bottle. Remove the Aluminium foil cap. Disinfect the part of the rubber stopper which is now exposed. Draw patient's blood (for paediatric use) with the sterile or disposable needle and syringe as explained in specimen collection and disposable column. Transfer the blood sample immediately into the culture bottle by puncturing the rubber stopper with the needle and injecting the blood. Venting: Use sterile venting needle (LA038). Keep the bottle in an upright position preferably in a biological safety cabinet, place an alcohol swab over the rubber stopper and insert the venting needle with filter through it. Insertion and withdrawal of the needle should be done in a straight line. discard the needle and mix the contents by gently inverting the bottle 2-3 times. Do Not vent the bottle for anaerobic cultures. Incubate at 35-37°C for 24-72 hours and further for seven days.

Principle And Interpretation

Alternative Thioglycollate Medium is formulated as described in the N.I.H. memorandum (1). It is used for the sterility testing of certain biological products which are turbid or viscous. Both the media have similar composition, except agar and resazurin that are not included in Alternative Thioglycollate Medium. The medium is highly enriched and supports the growth of pathogenic bacteria.

Tryptone serves as a source of nitrogen and carbon compounds, long chain amino acids and other essential nutrients. Yeast extract serve as source of essential nutrients to the contaminants, if present. Dextrose serves as the energy source. Sodium chloride maintains the osmotic equilibrium of the medium whereas L-cystine, an amino acid, also serves as source of essential growth factors. Sodium thioglycollate and L-cystine lower the oxidation-reduction potential of the medium by removing oxygen to maintain a low Eh. Sodium thioglycollate also helps to neutralize the toxic effects of mercurial preservatives (2,3).

Type of specimen

Clinical : Blood

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5).

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. Proper conditions must be maintained for optimal recovery of organisms

2. It is recommended for paediatric use. Not recommended for adult use.
3. 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.
4. Further isolation and biochemical tests are required for complete identification.

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

Sterile clear Thioglycollate Broth in glass bottle

Colour

Light yellow coloured clear solution.

Quantity of Medium

20ml of medium in glass bottle. (Volume of blood for paediatrics use - 1 to 3 ml)

pH

6.90-7.30

Sterility Check

Passes release criteria

Cultural response

Cultural characteristics was observed after incubation at 35-37°C for 24-72 hours

Organism	Inoculum (CFU)	Growth under anaerobic conditions	Growth under aerobic conditions
Clostridium sporogenes ATCC 19404 (00008*)	50 -100	luxuriant	-
Clostridium sporogenes ATCC 11437	50 -100	luxuriant	-
Clostridium perfringens ATCC 13124 (00007*)	50 -100	luxuriant	-
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	50 -100	luxuriant	-
Staphylococcus aureus subsp. aureus ATCC 6538 (00032*)	50 -100	-	luxuriant
Pseudomonas aeruginosa ATCC 27853 (00025*)	50 -100	-	luxuriant
^*Pseudomonas paraeruginosa* ATCC 9027 (00026*)	50 -100	-	luxuriant
Escherichia coli ATCC 25922 (00013*)	50 -100	-	luxuriant
Escherichia coli ATCC 8739 (00012*)	50 -100	-	luxuriant
Salmonella Abony NCTC 6017 (00029*)	50 -100	-	luxuriant
Salmonella Typhimurium ATCC 14028 (00031*)	50 -100	-	luxuriant
Bacteroides fragilis ATCC 23745	50 -100	luxuriant	-
#*Phocaeicola vulgatus* ATCC 8482	50 -100	luxuriant	-

Key : * Corresponding WDCM numbers
^ Formerly known as *Pseudomonas aeruginosa* (#) Formerly known as *Bacteroides vulgatus*

Storage and Shelf Life

Store between 2-8°C. Use before expiry date on the label. Product performance is best ifused 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 (4,5).

Reference

1.N.I.H. Memorandum, 1955: Culture Media for Sterility Tests, 4th Revision.
2.Nungester, Hood and Warren, 1943, Proc. Soc. Exp. Biol. Med., 52: 287
3.Portwood, 1944, J. Bacteriol., 48: 255
4.Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
5.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.

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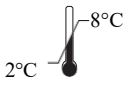
IVD *In vitro* diagnostic medical device



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
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CE CE Marking

Do not use if package is damaged

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