PRODUCT INFORMATION

Product Type: 9ml 140*13 Tubes

Cat No. TT137 - FLUID THIOGLYCOLLATE MEDIUM

Intended Use:

fluid thioglycolate medium (FTM) is used for sterility testing in a laboratory setting according to USP/EP, and cultivation of a broad range of bacteria, including aerobes, anaerobes, and microaerophiles.

Principles and uses:

FTM supports growth for a variety of fastidious microorganisms. Nitrogen, Carbon and Vitamin sources are provided by Enzymatic digest of Casein and Yeast extract. Sodium Thioglycollate and L-Cystein lower oxidation-reduction potential of the medium by removing oxygen. Sulfhydryl groups (-SH) neutralize antibacterial effect of mercurial preservatives, as a result - FTM is useful for testing material containing heavy metals. The indicator for oxidation is achieved by Resazurin, Resazurin turns pink when oxidized.

Dextrose, yeast extract, L-cystine provide the growth factors necessary for bacterial multiplication. L-cystine and sodium thioglycollate allows Clostridium to grow in this medium even under aerobic conditions. Sodium thioglycollate act as a reducing agent and neutralizes the toxic effects of mercurial preservatives and peroxides formed in the medium, thereby promoting anaerobiosis. Any increase in the oxygen content is indicated by a colour change of redox indicator, resazurin to red.

Certification / Compliance: FTM is prepared according to the formula specified by FDA and according to USP/ EP.

Expected Results

After incubation, growth is evidenced by the presence of turbidity compared to an uninoculated control. Strict aerobes tend to grow in a thin layer at the surface of the broth; obligate anaerobes will grow only in that portion of the broth below the upper oxidized layer.

Limitation of the Procedure

Anaerobes can be overgrown by more rapidly growing facultative organisms. Examine and Gram stain broth if plating medium reveals no growth. Never rely on broth cultures exclusively for isolation of anaerobes. Some anaerobes may be inhibited by metabolic products or acids produced from more rapidly growing facultative anaerobes.

Composition

Pancreatic Digest of Casein 15.0 g/L
Yeast Extract 5.0 g/L
Dextrose 5.5 g/L
Sodium Chloride 2.5 g/L
L-Cystine 0.5 g/L
Sodium Thioglycollate 0.5 g/L
Agar 0.75 g/L
Resazurin 1.0 mg/L

Storage: 15°-25°C
Package contents: 20 Tubes
Appearance: light amber, slightly opalescent
pH Range: 6.9 - 7.3
Exp. Date: Printed on label and on the item.
Required materials not supplied: Laboratory equipment as required.

Warning and Precautions:

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Tubes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Tubes may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.

Waste Disposal

After interpretation all items should be destroyed by standard incineration methods.

Performance Testing Results:

GPT: 10-100 cfu.

Test	ATCC NO	Incubation Temp. (℃)	Incubation Cond.	Reaction 1
Staphylococcus aureus	6538	30-35 ℃	3 days	Growth
Kocuria rhizophila (M. luteus)	9341	30-35 ℃	3 days	Growth
Clostridium sporogenes	11437	30-35 ℃	3 days	Growth
Pseudomonas paraeruginosa	9027	30-35 ℃	3 days	Growth
Candida albicans	10231	30-35 ℃	up to 5 days	Growth
Clostridium perfringens	13124	33-37 ℃	18-24 hours	Growth

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