OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

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TECHNICAL DATA SHEET

Anaerobic Thioglycollate Medium Base

Principle

Anaerobic thioglycollate medium base is used for the cultivation of anaerobic bacteria. Media is composed of casein enzymic hydrolysate, papaic digest of soyabean meal, meat extract, and liver hydrolysate, which provide the nitrogen, carbon, amino acids, vitamins, and other nutrients necessary to support bacterial growth. Dextrose serves as a carbon and energy source and is included in the media for early and vigorous growth of many organisms. Sodium chloride is used to maintain the osmotic balance. L-cystine and sodium thioglycollate allow anaerobic organisms to grow and maintain the low oxygen concentration in the medium. Sodium thioglycollate also acts as a reducing agent and neutralizes the toxic effects of mercurial preservatives and peroxides formed in the medium, thereby promoting anaerobiosis and making the medium suitable to test materials containing heavy metals. The small amount of agar helps in anaerobiosis.

Use: For the cultivation of anaerobes.

Contents*

Ingredients	Gram/Liter
Casein enzymic hydrolysate	17.000
Papaic digest of soyabean meal	3.000
Meat extract	7.500
Liver hydrolysate	3.000
Dextrose	6.000
Sodium chloride	2.500
Sodium thioglycollate	0.500
L-Cysteine	0.250
Sodium	0.100
sulphite Agar	0.700
pH at 25˚C	7.3±0.2

*** Formula adjusted for optimum performance and parameters**
 # Pancreatic digest of casein

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Directions: Dissolve 40.55 grams in 900 ml distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 min, cool it to 42-45°C. Add 100 ml sterile serum and mix well. Dispense into a sterile test tube and inoculate the test sample aseptically.

Specimens types analyzed

Pharmaceutical samples, clinical and non-clinical samples etc.

Precautions to be taken

All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	**Beige colored free flowing, homogeneous powder**
Reaction of 4.05% solution	**7.3±0.2 at 25°C**
pH	**7.10 - 7.50**
Gelling	**Comparable with 0.07% agar gel**
Color and clarity of ready medium	**Medium to dark amber color, clear to slightly opalescent gel**
Growth Promotion properties **Indicative properties**	**Best at ≤ 100 CFU at 32-37ºC for 18-72 h**
	Optimum at ≤ 100 CFU at 32-37ºC for 18-48 h
Negative control	**Performed using sterile distilled water**

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Different Microbial Response: Cultural characteristics observed after incubation at 35±2°C for 1824 hours.

Organism	ATCC	Inoculum (CFU)	Growth
Escherichia coli	25922	50-100	Good
Clostridium sporogenes	11437	50-100	Good
Clostridium perfringens	3624	50-100	Good
Bacteroides vulgatus	8482	50-100	Fair to Good

Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Note: Sterilize media immediately after reconstitution.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. **Atlas, R. M. (2005). Handbook of media for environmental microbiology. CRC press.**
2. **Caselitz F. H, u. Freitag V., 1969, Arztl. Lab., 15; 426-430.**

Difco Manual (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.

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