

TECHNICAL DATA SHEET

Thiobacillus Broth

Principle

Thiobacillus is the genus of gram-negative bacteria. The thiobacillus has ability to obtain energy from the oxidation of elemental sulfur or sulfur containing compounds. The medium contains three inorganic sulphates and a thiosulphate. Phosphate serves as a buffer while sodium chloride maintains the osmotic balance of the medium. Samples are inoculated into Thiobacillus Broth at 25-30°C for about 7 days or more, after incubation turbidity or sulphur precipitation observed on the surface of the liquid or against the walls of the flasks, indicates growth of bacteria.

Use: For the cultivation of Thiobacillus species.

Contents*

Ingredients	Gram/Litre
Ammonium Sulphate	0.400
Monopotassium Phosphate	4.000
Calcium Chloride	0.250
Ferrous Sulphate	0.010
Magnesium Sulphate	0.500
Sodium Thiosulphate	5.000

*** Formula adjusted for optimum performance and parameters**

Directions: Dissolve 10.16 grams in 1000 ml distilled water. Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs. pressure (121 °C) for 15 min, cool it to 42-45 °C and inoculate test sample aseptically.

Specimens types analyzed

Pharmaceutical samples, clinical and non-clinical samples etc.

Precautions to be taken

These microbial media are intended for the in-vitro use only. 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.

OXFORD LAB FINE CHEM LLP

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Regd Office: Unit no 12, 1st Floor,
Neminath Industrial Estate No.6,
Navghar, Vasai (East), Palghar - 410210.
Maharashtra, INDIA.

Tel: +91 250 2390032 / 2390989 / 2390990
Email: sales@oxfordlabchem.com /
info@oxfordlabchem.com
Web: www.oxfordlabchem.com



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	Off white colored free flowing, homogeneous powder
Color and clarity of ready medium	colorless clear solution
Negative control	Performed using sterile distilled water

Different Microbial Response: Cultural characteristics observed after incubation at 25-30°C for 7 days.

Organism	ATCC	Inoculum (CFU)	Growth
<i>Thiobacillus thiooxidans</i>	8085	50-100	Luxuriant

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. Starkey R. L., 1935, Science, 39:197.

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