

## TM 2367 – THIOBACILLUS BROTH (ATCC MEDIA 152)

### INTENDED USE

For cultural isolation of *Thiobacillus intermedia*.

### PRODUCT SUMMARY AND EXPLANATION

The genus *Thiobacillus* consists of gram negative bacteria. It has the ability to gain energy from the oxidation of elemental sulfur and sulfur containing compounds. Thiobacilli are obligate autotrophs and cannot grow with organic carbon as an electron and carbon source. This medium is suggested by ATCC for the growth and maintenance of *Thiobacillus intermedium*. *T. intermedium* is dependant on thiosulphate for its growth and is facultative chemolithotrophs that can grow with an organic electron donor.

### COMPOSITION

Ingredients	Gms / Ltr
Chlorophenol red	0.080
Sodium Thiosulphate.5H <sub>2</sub> O	10.000
Ammonium Chloride	1.000
Magnesium Chloride	0.500
Dipotassium hydrogen phosphate	0.600
Monopotassium dihydrogen phosphate	0.400
Ferric Chloride	0.020
Yeast Extract	1.000

### PRINCIPLE

Yeast extract provides nitrogenous compounds, vitamin B complex and other growth factors. Phosphates buffer the medium. Sodium thiosulphate serves as a source of sulphur. Ammonium, magnesium and ferric chloride provides ions for the growth of *Thiobacillus*.

### INSTRUCTION FOR USE

- Dissolve 9.97 grams (the equivalent weight of dehydrated medium per litre) in 1000ml purified / distilled water.
- Heat if necessary to dissolve the medium completely. Dispense as desired.
- Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

### QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light pink to purple homogeneous free flowing powder.
Appearance of prepared medium	: Pink coloured clear solution in tubes.
pH (at 25°C)	: 7.2±0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period



<i>Thiobacillus intermedia</i>	15466	50-100	Good	25-30°C	24-48 Hours
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**PACKAGING:**

In pack size of 500 gm bottles.

**STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.










**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

**REFERENCES**

1. American Type Culture Collection. Catalogue of Bacteria and phages. 18th Edition 1992.
2. Inst J Syst Bacteriol(42)522-528,1997,Moreira & Amils.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
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