

## TM 2357 – TB BROTH BASE

### INTENDED USE

For cultivation of *Mycobacterium tuberculosis*.

### PRODUCT SUMMARY AND EXPLANATION

TB Broth media are based on the medium formulated by Dubos and Davis and are used as liquid media for the cultivation of *Mycobacterium tuberculosis*. This medium provides dispersed growth of tubercle bacilli which is free of excessive clumps and so it can be used to prepare a uniform suspension of Mycobacteria. The medium can be used without additives and supplements; however, sterile dextrose and sterile serum can be added for the enrichment. Glycerol addition helps in the cultivation of *Mycobacterium tuberculosis* though some bovine strains are inhibited by it.

### COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	4.000
Yeast extract	2.000
Disodium hydrogen phosphate	2.500
Monopotassium phosphate	1.000
Sodium citrate	1.500
Magnesium sulphate	0.600
Polysorbate 80 (Tween 80)	0.500

### PRINCIPLE

Proteose peptone and yeast extract provide nitrogenous and carbonaceous nutrients, long chain amino acids and peptides, vitamin B complex and other essential nutrients. The medium is well buffered by phosphates. The salts present in the medium supply ions required for the mycobacterial metabolism. Sodium citrate inhibits gram-positive organisms and coliforms. Polysorbate 80, an oleic acid ester provides essential fatty acids for the replication of Mycobacteria.

### INSTRUCTION FOR USE

- Suspend 12.1 grams in 1000 ml purified /distilled water, which if desired contains 5 ml glycerol (tested to be non-inhibitory to typical cultures).
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-55°C and enrich with dextrose to a final concentration of 0.5% and either bovine albumin fraction-V or serum as desired.

### QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Yellow coloured clear solution without any precipitate.
pH (at 25°C)	: 7.0±0.2

### INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Mycobacterium kansasii</i>	12478	50-100	Luxuriant	35-37°C	2-4 Weeks
<i>Mycobacterium smegmatis</i>	14468	50-100	Luxuriant	35-37°C	2-4 Weeks
<i>M. tuberculosis H37RV</i>	25618	50-100	Luxuriant	35-37°C	2-4 Weeks

**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**

- 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.
- Isenberg, (Ed.), 1992, Clinical Microbiology Procedures Handbook, Vol. I, ASM, Washington, D. C.
- Dubos and Davis, 1946, J. Exp. Med., 83:409.

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Borkstrasse 10, 48163 Moenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

**\*For Lab Use Only**  
Revision: 08 Nov., 2019

