



## TB Broth Base w/o Tween 80

M034

TB Broth Base w/o Tween 80 is used for cultivation of Mycobacteria when the presence of oleic acid is undesirable.

### Composition\*\*

Ingredients	Gms / Litre
Proteose peptone	4.000
Yeast extract	2.000
Disodium phosphate	2.500
Monopotassium phosphate	1.000
Sodium citrate	1.500
Magnesium sulphate	0.600
Final pH ( at 25°C)	7.0±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 11.6 grams in 1000 ml distilled water, which if desired contains 5 ml glycerol (tested to be non-inhibitory to typical cultures). Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45°C and enrich with dextrose to a final concentration of 0.5% and either bovine albumin fraction-V or serum as desired.

### Principle And Interpretation

TB Broth media are based on the medium formulated by Dubos and Davis (1) 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 enrichment. Glycerol addition helps in the cultivation of *Mycobacterium tuberculosis* though some bovine strains are inhibited by it.

Proteose peptone and yeast extract provide nitrogenous nutrients like 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.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Colour and Clarity of prepared medium

Yellow coloured clear solution without any precipitate.

#### Reaction

Reaction of 1.16% w/v aqueous solution at 25°C. pH : 7.0±0.2

#### pH

6.80-7.20

#### Cultural Response

M034: Cultural characteristics observed after an incubation at 35-37°C for 2-4 weeks.

#### Organism

#### Growth

#### Cultural Response

*Mycobacterium kansasii* luxuriant

ATCC 12478

*Mycobacterium smegmatis* luxuriant

ATCC 14468

*M. tuberculosis H37 RV* luxuriant

25618

## Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

## Reference

1. Dubos and Davis, 1946, J. Exp. Med., 83:409.

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### Disclaimer :

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