



Dehydrated Culture Media
Bases / Media Supplements

Technical Information

TB Broth Base w/o Tween 80

Product Code: DM 1034

Application: 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

Principle & Interpretation

TB Broth media are based on the formula of Dubos and Davis⁽¹⁾. This medium is used as liquid media for the cultivation of *Mycobacterium tuberculosis* which provides dispersed growth of tubercle bacilli free of excessive clumps and so as 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. Addition of glycerol 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.

Methodology

Suspend 11.6 grams of powder media in 1000 ml distilled water, which contains 5 ml glycerol if desired (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.

Quality Control

Physical 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 solutions at 25°C. pH: 7.0±0.2

pH Range:- 6.80-7.20

Cultural Response/Characteristics

DM 1034: Cultural characteristics observed after an incubation at 35-37°C for 2-4 weeks.

Organism

Mycobacterium kansasii ATCC 12478

Mycobacterium smegmatis ATCC 14468

M. tuberculosis H37 R V 25618

Growth

luxuriant

luxuriant

luxuriant





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Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

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

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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