

Technical Information

Peizer TB Medium Base

Product Code: DM 1867

Application: - Peizer TB Medium Base is used for cultivation of *Mycobacterium tuberculosis*.

Composition**

Ingredients	Gms / Litre
Casein acid hydrolysate	10.000
Beef extract	3.000
L-Asparagine	3.000
Potato starch	15.000
Ferric ammonium citrate	0.100
Magnesium sulphate	0.015
Dipotassium phosphate	3.500
Citric acid	0.100
Agar	15.000

*Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Peizer et.al devised Peizer TB Medium for the cultivation of *Mycobacterium tuberculosis* responsible for human tuberculosis⁽¹⁾. It can also be used for determining the sensitivity of *Mycobacterium tuberculosis* against recommended therapeutic agents for successful treatment & control of the disease⁽²⁾. Beef extract and casein acid hydrolysates are the rich sources of nitrogen and some additional growth factors for the growth of tubercle bacilli⁽³⁾. Egg yolk emulsion provides fatty acids and proteins required for the metabolism of *Mycobacteria*. L-Asparagine and starch serves as the amino acid and carbohydrate source respectively. Citric acid holds certain inorganic cations in solution. Malachite green inhibits the growth of certain contaminating bacteria.

Methodology

Suspend 49.8 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the media completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to around 55°C and aseptically add egg yolk emulsion (prepared from 10 sterile egg yolks and 25 ml sterile saline, to which 1 ml of sterile 20% dextrose solution and 13 ml of 1% malachite green solution is added) and add 40 ml sterile glycerol. Mix thoroughly and dispense in tubes, then allow it to solidify as slants.

Quality Control

Physical Appearance

Light yellow to light tan homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Light green coloured opaque gel forms in tube as slants

Cultural Response/ characteristics

DM 1867: Cultural characteristics observed after an incubation at 35-37°C for 2-4 weeks.



Dehydrated Culture Media
Bases / Media Supplements

Organism	Growth
Mycobacterium fortuitum ATCC 6841	luxuriant
Mycobacterium kansasii ATCC 12478	luxuriant
M. tuberculosis H37RV ATCC 25618	luxuriant

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: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Peizer and Schechter, 1950, Am. J. Clin. Path., 20:682.
2. Peizer, Widelock and Schechter, 1951, Am. J. Clin. Path., 21:982.
3. Dubos and Middlebrook, 1947, Am. Rev. Tuberc., 56:334.

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