



Proskauer Beck medium

M1697

Proskauer Beck medium is recommended for the cultivation and maintenance of *M.tuberculosis* .

Composition**

Ingredients	Gms / Litre
Asparagine	5.000
Potassium dihydrogen phosphate	5.000
Magnesium citrate	2.500
Magnesium sulphate,heptahydrate	0.600
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 12.79 grams of dehydrated medium in 1000 ml distilled water containing 20 ml glycerol. Distribute in tubes or flasks. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Proskauer and Beck medium is an inorganic chemically defined medium containing asparagine as nitrogen source and glycerol as energy source (1). This medium supports growth of *M. tuberculosis* . It was reported that chemically modified defined growth medium like Proskauer and Beck medium provides more consistent cellular fatty acid profiles than lipid rich L. J. medium (2). With added ferrous chloride (0.0046 g /ltr) and ZnSO₄ .7H₂O (0.001 g/ltr) (referred as Modified Proskauer and Beck medium) this medium is recommended by AOAC for testing Tuberculocidal activity of disinfectants (3).

Quality Control

Appearance

White to cream homogeneous free flowing powder

Colour and Clarity of Prepared medium

Colourless to pale yellow coloured, clear solution, without any precipitate in tubes

Reaction

Reaction of 1.28% w/v aqueous solution containing 2% glycerol at 25 °C pH : 7.4±0.2

pH

7.20-7.60

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 2-4weeks with 5-10% CO₂.

Cultural Response

Organism	Inoculum (CFU)	Growth
Cultural Response		
<i>Mycobacterium tuberculosis</i> H37RV ATCC 25618	50-100	good-luxuriant
<i>Mycobacterium kansasii</i> ATCC 12478	50-100	good-luxuriant
<i>Mycobacterium gordonae</i> ATCC 14470	50-100	good-luxuriant
<i>Mycobacterium avium</i> ATCC 50-100 25291		good-luxuriant
<i>Mycobacterium smegmatis</i> ATCC 14468	50-100	good-luxuriant

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. Proskauer, B. and Beck, M. 1898, Z. Hyg. Infektionskrankh., Vol. 18, p128 .
2. L. Larsson , E. Jantzen and J. Johnsson, Oct. 1985. European Journal of Clinical Microbiology & Infectious Diseases, Vol. 4, No.5, p. 483.
3. Official Methods of Analysis of AOAC International 2000, 17th edition. Vol. I Chapter 6., Disinfectants, Editor. Emma Singleton .Subchapter 3: Other Tests 6.3.06 AOAC Official method 965.12 Tuberculoid Activity of disinfectants. Official Method p.14.

Revision : 1 / 2011



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