



Bacillus Medium

M1383

Bacillus Medium is used for cultivation of *Bacillus licheniformis* .

Composition**

Ingredients	Gms / Litre
L-Glutamic acid	4.000
Citric acid	2.000
Dipotassium hydrogen phosphate	0.500
Ferric ammonium citrate	0.500
Magnesium sulphate	0.500
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 7.5 grams in 1000 ml of distilled water containing 20 grams of glycerol. Heat if necessary to dissolve the medium completely. Dispense in tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Bacillus licheniformis is a gram-positive, spore-forming soil bacterium that is used in the biotechnology industry to manufacture enzymes, antibiotics, biochemicals and consumer products. This species is closely related to the well-studied model organism *Bacillus subtilis* , and produces an assortment of extracellular enzymes that may contribute to nutrient cycling in nature. Bacillus Medium is recommended by ATCC as a cultivation and maintenance medium for *Bacillus licheniformis* ATCC No. 9945a (1). This medium is a slight modification of Thorne Medium (2, 3), recommended for cultivation of *Bacillus licheniformis* .

Bacillus medium contains glycerol, which provides carbon and energy for the growth of bacteria. Glutamic acid and ferric ammonium citrate act as source of nitrogen. Dipotassium phosphate and citric acid provide necessary nutrients along with buffering action.

Quality Control

Appearance

White to cream homogeneous free flowing powder

Colour and Clarity of prepared medium

Yellow coloured, clear solution may contain a slight precipitate.

Reaction

Reaction of 0.75% w/v aqueous solution containing 2% glycerol at 25°C. pH : 7.4±0.2

pH

7.20-7.60

Cultural Response

M1383: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth
Cultural Response		
<i>Bacillus cereus</i> ATCC 10876	50-100	good-luxuriant
<i>Bacillus licheniformis</i> ATCC 50-100 9945a		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

Please refer disclaimer Overleaf.

1. Rey M. W. et al, 2004, Genome Biol., 2004, 5(10).
2. Catalogue of Bacteria and Bacteriophages, 1992, 18th Edition, American Type Culture Collection.
3. Thorne C.B., 1954, J. Bacteriol., 68:307.
4. Atlas R.M.. 2004, 3rd Ed., Handbook of Microbiological Media, Parks, L.C. (Ed.), CRC Press, Boca Raton.

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