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TECHNICAL DATA SHEET

Bacillus Medium

Principle

Bacillus medium is used for cultivation of *Bacillus licheniformis,* it is a gram-positive, spore-forming soil bacterium that is used in the biotechnology industry to manufacture enzymes, antibiotics, biochemicals and consumer products. This medium is modification of Thorne Medium (1966, 1992), recommended for cultivation of *Bacillus licheniformis*. Bacillus medium contains L-glutamic acid, citric acid, Dipotassium phosphate, ferric ammonium citrate and magnesium Sulphate. At time of preparation the media is fortified with glycerol, which provides carbon and energy for the growth of bacteria. Glutamic acid and ferric ammonium citrate act as source of nitrogen. Citric acid provides necessary nutrients along buffering action. Dipotassium phosphate acts as buffering agent. Magnesium Sulphate is necessary for the growth of microorganisms and provides membrane stability and act as cofactor in various metabolic reactions.

Use: For the cultivation of Bacillus licheniformis.

Contents*

Ingredients	Gram/Liter
L-Glutamic acid	4.000
Citric acid	2.000
Dipotassium phosphate	0.500
Ferric ammonium citrate	0.500
Magnesium Sulphate	0.500
pH at 25˚C	7.4 ±0.2

*** Formula adjusted for optimum performance and parameters**

Directions: Dissolve 7.50 grams in 1000 ml distilled water containing 20.0 g of glycerol. Boil to dissolve medium completely. Sterilize by autoclaving at 15 lbs pressure (121 °C) for 15 min, cool it to 42-45 °C and inoculate test sample aseptically.

Specimens types analyzed

Pharmaceutical and economically important isolates etc.

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Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	**White to cream colored free flowing, homogeneous powder**
Reaction of 0.75% solution	**7.40 ±0.2 at 25 ˚C**
pH	**7.20- 7.60**
Color and clarity of ready medium	**Light yellow colored opalescent solution**
Negative control	**Performed using sterile distilled water**

Different Microbial Response: Cultural characteristics observed after incubation at 35±2°C for 18-24 hours.

Organism	ATCC	Inoculum (CFU)	Growth
Bacillus licheniformis	**9945a**	**50-100**	**Luxuriant**
Bacillus cereus	**10876**	**50-100**	**Luxuriant**

Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Note: Sterilize media immediately after reconstitution.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

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Reference

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