



Streptomyces Medium

M1330

Streptomyces Medium is recommended for the cultivation and maintenance of *Streptomyces kanamyceticus*.

Composition**

Ingredients	Gms / Litre
Glucose	5.000
L-Glutamic acid	4.000
Monopotassium phosphate	1.000
Sodium chloride	1.000
Magnesium sulphate, 7H ₂ O	0.700
Ferrous sulphate, 7H ₂ O	0.003
Agar	25.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 36.34 grams of dehydrated medium in 1000 ml. distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

Principle And Interpretation

Streptomyces i.e. aerobic Actinomycetes usually inhabit soil. In humans, the infections are limited to actinomycotic mycetoma. *Streptomyces* are considered to be a treasure for production of antibiotics. *Streptomyces kanamyceticus* is especially useful for the production of kanamycin A, B and also acetyltransferases (2). Streptomyces Medium is used for the cultivation and maintenance of *S. kanamyceticus*. This species is of significant use as kanamycin antibiotic is prepared (extracted) using these fungi.

Though many carbon sources have been used for the growth of *S. kanamyceticus*, glucose is found to be the most suitable carbon source for the production of antibiotic from it (1). L-Glutamic acid is the nitrogen source. The salts provide essential ions for the growth of *S. kanamyceticus*.

Quality Control

Appearance

Off -white to light yellow homogeneous free flowing powder

Gelling

Firm, comparable with 2.5% Agar gel

Colour and Clarity of prepared medium

Light amber coloured clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 3.63% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH

6.80-7.20

Cultural Response

M1330: Cultural characteristics observed after an incubation at 25-30°C for upto 7 days.

Organism

Growth

Cultural Response

Streptomyces kanamyceticus luxuriant

ATCC 12853

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. Rodney A, Shukla A and Majumdar. African Journal of Biotechnology Vol 4 (9). 909-910, 2005.
2. Balows A., Truper H. G., Dworkin M., Harder W., Schleifer K. H., (Ed.), The Prokaryotes, 1992, 2nd Edition, Vol. III, Springer-Verlag.

Revision : 02 / 2015

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.