



Pantothenate Culture Agar

M135

Pantothenate Culture Agar is recommended for culturing *Lactobacillus plantarum* ATCC 8014 used in the microbiological assay of pantothenic acid or its salts.

Composition**

Ingredients	Gms / Litre
Yeast extract	20.000
Dextrose	5.000
Sodium acetate	5.000
Agar	15.000
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 45 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Distribute in tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Allow the tubes to cool in an upright position.

Principle And Interpretation

Pantothenate Culture Agar is prepared according to US Pharmacopoeia (1) and is recommended for culturing *Lactobacillus plantarum* ATCC 8014 used in the microbiological assay of pantothenate.

This medium contains all the necessary nutrients except pantothenate for the growth of *L. plantarum*. *L. plantarum* ATCC 8014 is an auxotrophic strain requiring pantothenate. Growth of *L. plantarum* ATCC 8014 is functional to the concentration of pantothenate in the medium. Therefore from the standard linear curve, concentration of pantothenate from the unknown sample can be determined.

Yeast extract and dextrose supply nitrogen and carbon for the growth of the organism. Sodium acetate inhibits the growth of some organisms including gram-negative bacteria and moulds.

The culture to be used in the assay is inoculated into tubes of Pantothenate Culture Agar and incubated at 35-37°C for 16-24 hours. These cultures are then maintained at 2-10°C for not more than a week. Fresh cultures should be made after every week. The inoculum is prepared by transferring culture from Pantothenate Culture Agar into 10 ml of sterile single strength Pantothenate Assay Medium (M037).

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Light yellow coloured clear to slightly opalescent gel forms in tubes as butts

Reaction

Reaction of 4.5% w/v aqueous solution at 25°C. pH : 6.8±0.2

pH

6.60-7.00

Cultural Response

M135: Cultural characteristics observed after an incubation at 35 - 37°C for 16 - 24 hours.

Organism	Inoculum (CFU)	Growth
----------	-------------------	--------

Lactobacillus plantarum 50-100 good-luxuriant
ATCC 8014

Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry date on the label.

Reference

1. United States Pharmacopoeia, National Formulary, 1985, 21st rev., USP Convention, Inc., Rockville, MD.

Revision : 2 / 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.