Lactobacilli Agar, AOAC

M366

Lactobacilli Agar, AOAC is used for carrying the stock cultures used in microbiological assays of the B-vitamins.

Composition**

Ingredients	Gms / Litre
Peptonized milk	15.000
Yeast extract	5.000
Dextrose	10.000
Tomato juice (100 ml)	5.000
Monopotassium phosphate	2.000
Polysorbate 80	1.000
Agar	10.000
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 48 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Distribute into tubes in 10 ml amounts and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool the tubed agar medium in an upright position.

Principle And Interpretation

Lactobacilli Agar, AOAC was formulated by Loy (1) and recommended by AOAC (2) for carrying stock cultures used for Microbiological assay of Vitamin B. Lactobacilli Agar, AOAC is used for the cultivation and maintenance of stock cultures of *Lactobacillus casei* ATCC 7469, *Lactobacillus fermentum* ATCC 9338, *Lactobacillus leichmannii* ATCC 4797, and *Lactobacillus viridescens* ATCC 12706 by stab inoculation of sterile tubed medium followed by incubation for 18-24 hours at a constant temperature between 30-40°C. The cultures are then stored at 2-8°C.

Peptonized milk and yeast extract provide essential growth nutrients. Dextrose is the energy source. Phosphate provides buffering system while tomato juice helps in lowering the pH. Polysorbate 80 serves as an emulsifier.

Before using a culture in any assay, at least 2 successive transfers during a 1-2 week period are essential. Any culture older than one week should not be used.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Gelling
Firm, comparable with 1.0% Agar gel.

Colour and Clarity of prepared medium
Medium amber coloured clear to slightly opalescent gel forms in tubes as butts

Reaction
Reaction of 4.8% w/v aqueous solution at 25°C. pH : 6.8±0.2

pH
6.60-7.00

Cultural Response
M366: Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours

Organism	Inoculum (CFU)	Growth
Enterococcus hirae ATCC 8043	50-100	luxuriant

Lactobacillus casei ATCC 7469	50-100	luxuriant
Lactobacillus leichmannii ATCC 7830	50-100	luxuriant
Lactobacillus plantarum ATCC 8014	50-100	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. Loy, 1958, J. AOAC, 4:61.
2. Williams, (Ed.), 2005, Official Methods of Analysis of the Association of Official Analytical Chemists, 19th Ed., AOAC, Washington, D.C

Revision : 1 / 2011