Technical Information

Lactobacilli Broth, AOAC

Product Code: DM 1367

Application: Lactobacilli Broth, AOAC, is used for preparation of inocula of test bacteria 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
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Lactobacilli Broth, AOAC was formulated by Loy [1] and recommended by AOAC [2] for preparing inocula of test bacteria used for Microbiological assay of Vitamin B. Stock cultures of *Lactobacillus leichmanni* ATCC 7830, *Lactobacillus plantarum* ATCC 8014, *Lactobacillus casei* ATCC 7469, *Enterococcus hirae* ATCC 8043 and other strains are prepared by stab inoculation of Lactobacillus Agar, AOAC followed by incubation for 18-24 hours at a temperature between 3 0-40°C. Lactobacilli Broth, AOAC is used for cultivation and preparation of inocula of the above mentioned stock cultures [3] by inoculating these cultures in Lactobacillus Broth, AOAC and incubating at 35-37°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 supplies fatty acids.

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.

Methodology

Suspend 38 grams of powder media in 1000 ml distilled water. Shake well & heat 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.

Quality Control

Physical Appearance
Cream to yellow homogeneous free flowing powder
Colour and Clarity of prepared medium
Medium amber coloured clear solution in tubes

Reaction
Reaction of 3.8% w/v aqueous solution at 25°C. pH : 6.8±0.2

pH Range:- 6.60-7.00

Cultural Response/Characteristics
DM1367: Cultural characteristics observed after an incubation at 35 - 37°C fo r 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

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8^0 in sealable plastic bags for 2-5 days.

Further Reading

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.

3.Atlas R. M., 2004, Handbook of Microbiological Media, 3rd Edition, CRC Press

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