Potato Dextrose Agar with 3% Agar

M937

Potato Dextrose Agar with 3% Agar is recommended for isolation and cultivation of fungi-yeasts and moulds from dairy and food products.

Composition**

Ingredients	Gms / Litre
Potatoes, infusion from	200.000
Dextrose	20.000
Agar	30.000
Final pH (at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 54 grams 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 before dispensing. In specific work, when pH 3.5 is required, acidify the medium with sterile 10% tartaric acid. The amount of acid required for 100 ml. of sterile, cooled medium is approximately 1 ml. Do not heat the medium after addition of the acid.

Principle And Interpretation

Potato Dextrose Agar is recommended by APHA (1) and F.D.A (2) for plate counts of yeasts and moulds in the examination of foods and dairy products (3). Incorporation of 3% agar enhances sporulation in the medium.

Potato infusion and dextrose promote luxuriant fungal growth. Adjusting the pH of the medium by tartaric acid to 3.5, inhibits the bacterial growth. Heating the medium after acidification should be avoided as it may hydrolyse the agar which can render the agar unable to solidify.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Gelling
Firm, comparable with 3.0% Agar gel

Colour and Clarity of prepared medium
Light amber coloured clear to slightly opalescent gel forms in Petri plates.

Reaction
Reaction of 5.4% w/v aqueous solution at 25°C. pH : 5.6±0.2

pH
5.40-5.80

Cultural Response
M937: Cultural characteristics observed after an incubation at 22-25°C for 4-5 days.

Organism	Inoculum (CFU)	Growth	Ascospore formation	Recovery
**Aspergillus brasiliensis* ATCC 16404	50-100	luxuriant	negative	
Candida albicans ATCC 10231	50-100	luxuriant	negative	>=70%
Saccharomyces cerevisiae ATCC 9763	50-100	luxuriant	positive	>=70%

*Key : * - Formerly known as Aspergillus niger*

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. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
2. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.
3. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.

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