

Technical Information

Potato Dextrose Agar with 3% Agar

Product Code: DM 1937

Application: - 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

Principle & 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⁾. Addition of 3% agar enhances sporulation in the medium. Potato infusion and dextrose promote luxuriant fungal growth. Adjusting the pH of the medium to 3.5 by tartaric acid to inhibits the bacterial growth. Heating the medium after acidification should be avoided as it may hydrolyse the agar which can make media unsuitable for use.

Methodology

Suspend 54 grams of powder media in 1000 ml distilled water. Shake well & heat 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.

Quality Control

Physical 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 Range 5.40-5.80

Cultural Response/Characteristics

DM 1937: Cultural characteristics observed after an incubation at 22-25°C for 4-5 days.



Dehydrated Culture Media
Bases / Media Supplements

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

Key : * - Formerly known as *Aspergillus niger*

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: 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

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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