Technical Data

Potato Dextrose Agar Plate

MP096

Intended use

Recommended for the isolation and enumeration of yeasts and moulds from water, dairy and other food products and clinical samples.

Composition**

Ingredients	g / L
Potatoes, infusion 200 g #	4.000
Dextrose (Glucose)	20.000
Agar	15.000
Final pH (at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

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). Potato Dextrose Agar is also used for stimulating sporulation, for maintaining stock cultures of certain dermatophytes and for differentiation of typical varieties of dermatophytes on the basis of pigment production(4). It is also recommended by USP (5), BP (6) and EP(3) for growth of fungi. Potato infusion and dextrose promote luxuriant fungal growth.

Type of specimen

Food and dairy samples; Water samples

Specimen Collection and Handling:

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,7).
For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (8).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1.Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2.Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's requirement.
3.Further serological and biochemical testing is required for complete identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance
Sterile Potato Dextrose Agar in 90 mm disposable plates with smooth surface and absence of black particles/cracks/bubbles.
Colour of medium
Yellow coloured medium
Quantity of medium
25 ml of medium in 90 mm disposable plates.

pH

5.40 - 5.80

Sterility Check

Passes release criteria

Cultural Response

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

Organism	Growth	Ascospore formation
# *Aspergillus brasiliensis* ATCC 16404 (00053*)	luxuriant	Negative
Candida albicans ATCC 10231 (00054*)	luxuriant	Negative
Saccharomyces cerevisiae ATCC 9763 (00058*)	luxuriant	Positive

Key : (#) - Formerly known as *Aspergillus niger,* (*) - corresponding WDCM numbers

Storage and Shelf Life

On receipt store between 20-30°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (9,10).

Reference

1.Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.

2.FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.

3.European Pharmacopoeia, 2020, European Dept. for the quality of Medicines.

4.MacFaddin J. F., 1985, Media for the Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol.1, Williams and Wilkins, Baltimore

5.The United States Pharmacopoeia, 2022, The United States Pharmacopoeial Convention. Rockville, MD.

6.British Pharmacopoeia, 2022, The Stationery office British Pharmacopoeia

7.Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.

8.Lipps WC, Braun-Howland EB, Baxter TE,eds. Standard methods for the Examination of Water and Wastewater, 24th ed. Washington DC:APHA Press; 2023.

9.Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.

10.Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W.(2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1

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