Potato Dextrose Broth, Granulated

GM403

Potato Dextrose Broth, granulated is recommended for the isolation and enumeration of yeasts and moulds .

Composition**

Ingredients	Gms / Litre
Potatoes, infusion from	200.000
Dextrose	20.000
Final pH (at 25°C)	5.1±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 24.0 grams in 1000 ml distilled water. Heat if necessary 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 Broth 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 Broth 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).

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.

Quality Control

Appearance
Off-white to yellow coloured granular medium.

Colour and Clarity of prepared medium
Light amber coloured clear to slightly opalescent solution in tubes

Reaction
Reaction of 2.4% w/v aqueous solution at 25°C. pH : 5.1±0.2

pH
4.90-5.30

Cultural Response
Cultural characteristics observed after an incubation at 25-30°C for 4-5 days.

Organism	Inoculum (CFU)	Growth	Ascospore formation
Cultural Response			
#Aspergillus brasiliensis ATCC 16404 (00053*)	50-100	luxuriant	negative
Candida albicans ATCC 10231 (00054*)	50-100	luxuriant	negative
Saccharomyces cerevisiae ATCC 9763 (00058*)	50-100	luxuriant	positive

Key:- # Formerly known as *Aspergillus niger*

Key:- * Corresponding WDCM numbers

Storage and Shelf Life

On receipt store between 10-30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

1. Salfinger Y. and Tortorello, ML (Eds.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th 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.
4. MacFaddin J. F., 1985, Media for the Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol.1, Williams and Wilkins, Baltimore

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