Potato Dextrose Agar EP/USP/BAM

Cat. 1022

For the identification, cultivation and enumeration of yeast and molds.

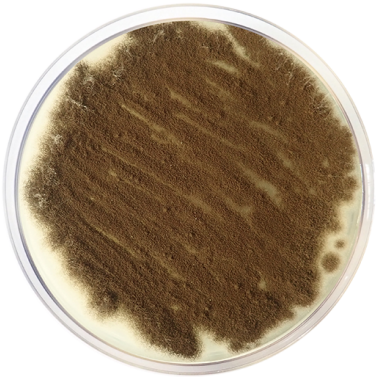
Practical information

Aplications	Categories
Selective enumeration	Yeasts and molds

Industry: Pharmaceutical/Veterinary / Clinical / Food / Final product Quality Control

Regulations: USP / European Pharmacopoeia / BAM

CE
IVD



Principles and uses

Potato Dextrose Agar is recommended by APHA and FDA for culturing yeast and molds. It can also be used in the identification of fungi and yeasts in parallel with their cellular morphology, or in methods of micro cultivation in slides.

This general purpose medium can be supplemented with acid or antibiotics to inhibit bacterial growth. The nutritionally rich base (potato infusion) encourages a very rich fungal and mold growth. Dextrose is the fermentable carbohydrate as a carbon and energy source. Bacteriological Agar is the solidifying agent.

The European Pharmacopoeia, USP recommends this medium in the paragraph 2.6.12: “Microbiological examination of non-sterile products: Microbial enumeration test” for the preparation of the test strain in the examination of TYMC.

Formula in g/L

Bacteriological agar	15	Dextrose	20
Potato starch (equivalent to 200 g of Infusion from potatoes)	4		

Typical formula g/L * Adjusted and/or supplemented as required to meet performance criteria.

Preparation

Suspend 39 grams of medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 118-121 ºC for 15 minutes. Cool to 45-50 ºC, mix well and dispense into plates.

Instructions for use

» For clinical diagnosis, the type of sample are all clinical samples (hair, skin, nails etc.).

- Inoculate the surface streaking in parallel with the handle or swab. If the samples are formed by scrapes of skin, hair or nails, place the material in the center of the surface of the medium.
- Incubate at 25-30 ºC or 20-25 ºC for 18-48 hours and up to 7 days depending on the examined microorganism.
- Reading and interpretation of the results.

» For other uses not covered by the CE marking:

Cultivation and enumeration of yeast and molds:
- Inoculate the Potato Dextrose Agar plates in order to obtain isolated colonies.
- When the medium is to be used for the enumeration of yeasts and molds, the pH should be lowered to inhibit bacteriological growth. Add to the cooled to 45-50 ºC sterilized medium, approximately 14 ml of a sterilized 10% solution of tartaric acid to obtain a pH of 3,5. Do not reheat the adjusted medium after adding the acid because the agar may hydrolyze and not solidify.

- Incubate plates at 25-30 ºC for 5-7 days forTrichophyton mentagrophytes, at 20-25 ºC for 5-7 days, or until good sporulation is achieved for Aspergillus brasiliensis and at 25-30 ºC for 18-48 h for Candida albicans and Saccharomyces cerevisiae.
- Yeasts will grow as cream to white colonies. Molds will grow as fuzzy colonies of various colors.
- To differentiate and isolate genus and species, carry out further microscopic and biochemical tests.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Beige	Light amber, slightly opalescent	5,6±0,2

Microbiological test

Incubation conditions: Aspergillus brasiliensis (20-25 ºC / 5-7 days or until good sporulation is achieved); Candida albicans and Saccharomyces cerevisiae (25-30 ºC / 18-48 h).

Microorganisms	Specification
Candida albicans ATCC 10231	Good growth
Aspergillus brasiliensis ATCC 16404	Good growth
Trichophyton mentagrophytes ATCC 24957	Good growth
Saccharomyces cerevisiae ATCC 9763	Good growth

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

American Public Health Association. Standard Methods for the Examination of Dairy Products, 13th Ed. APHA, Inc. New York, 1960.
American Public Health Association. Recommended Methods for the Microbiological Examination of Foods. APHA, New York, 1958.
Association of Official Analytical Chemists. 1995. Bacteriological analytical manual, 8th ed. AOAC International. Gaithersburg, MD.
European Pharmacopoeia 9.3