P2182 Potato Dextrose Agar NutriSelect® Basic

Cultivation of bacteria, fungi, yeast and molds

Composition:

Ingredients	Grams/Litre
Agar	15.0
Glucose (Dextrose)	20.0
Potatoes, infusion from	4.0

Final pH 5.7 +/- 0.2 at 25°C

Store granulated media between 10-30°C in tightly closed container and the prepared medium at 20-30°C. Avoid freezing and overheating. Once opened keep powdered medium closed to avoid hydration. Use before expiry date on the label.

Appearance(color): Cream to yellow, free flowing powder
Color and Clarity: Yellow coloured clear to slightly opalescent gel forms in Petri plates.
Gelling : Firm, comparable with 1.5% Agar gel

Directions:
Solve 39 g in 1 litre distilled water. Autoclave 15 minutes at 121°C.

Principle and Interpretation:
Potato dextrose agar (PDA) is a general-purpose basal medium recommended by APHA (2) and F.D.A. (3) for the identification, cultivation, and enumeration of yeast and molds in foods and dairy products (4). Since it stimulates sporulation and pigmentation, it also aids in cultivating and differentiating pathogenic and non-pathogenic fungi (1). It is also recommended by USP (5), BP (6), EP (8) and JP (7) for growth of fungi.
The potato infusion and dextrose as a carbohydrate source support the luxuriant growth of fungi and bacteria. Acidifying the medium to pH 3.5 by sterile tartaric acid inhibits bacterial growth that can impede the yeasts and mold. Agar acts as a solidifying agent.Heating the medium after acidification should be avoided as it may hydrolyse the agar, which can render the agar unable to solidify.

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

Organisms (ATCC/WDCM)	Growth	Ascospore formation
Aspergillus brasiliensis (16404/00053)	+++	negative
Candida albicans (10231/00054)	+++	negative
Saccharomyces cerevisiae (9763/00058)	+++	positive

References:
1. MacFaddin J. F., 1985, Media for the Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol.1, Williams and Wilkins, Baltimore.
2. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
3. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.
4. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological
5. The United States Pharmacopoeia, 2020, The United States Pharmacopoeial Convention. Rockville, MD.
6. British Pharmacopoeia, 2019, The Stationery office British Pharmacopoeia
7. Japanese Pharmacopoeia, 2016.
8. European Pharmacopoeia, 2019, European Dept. for the quality of Medicines

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.