

Potato Dextrose Agar Medium

Catalog : HB0233-17-500

Potato Dextrose Agar Medium is recommended for the isolation and enumeration of yeasts and moulds from dairy and other food products.

Approximate Formula:

Ingredients	gm/liter
Potato infusion	11.0
Dextrose	20.0
Agar	15.0
Final pH 5.6±0.2 25°C	

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 46.0g of the medium in one liter of distilled or deionized water. Mix well and heat with frequent agitation. Boil for one minute. Sterilize in an autoclave at 121°C (15 lbs.) for 15 minutes. Cool to 40-45°C and pour into petri dishes.

Principle and Interpretation:

Potato Dextrose Agar Medium is recommended by APHA and F.D.A. for plate counts of yeasts and moulds in the examination of foods and dairy products. 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. It is also recommended by USP, BP, EP and JP for growth of fungi. Potato infusion and dextrose promote luxuriant fungal growth. Adjusting the pH of the medium by tartaric acid to inhibit the bacterial growth. Heating the medium after acidification should be avoided as it may hydrolyse the agar which can render the agar unable to solidify.

Appearance:

Dehydrated medium is a free flowing yellowish powder. The prepared medium is a kind of yellowish to milky white opaque gel.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

Potato Dextrose Agar Medium must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 3 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 28±1°C for 48-96 hours.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Recovery	Remarks
<i>Aspergillus Niger</i>	ATCC 16404	20-200	Luxuriant	≥70%	Black spores, white hypha
<i>Saccharomyces Cerevisiae</i>	ATCC 9763	20-200	Luxuriant	≥70%	Cream colonies
<i>Candida Albicans</i>	ATCC 10231	20-200	Luxuriant	≥70%	Cream colonies

Reference:

- Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
- FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.
- Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.