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Potato Dextrose Agar (PDA) Plate

For the subculture of fungi in accordance with the harmonized method of USP/EP/BP/JP.

REF: BS.1/PDP01.010.0010 10 Plates

CLINICAL SIGNIFICANCE

Potato Dextrose Agar (PDA) is a general purpose medium for yeasts and molds that can be complemented with acid or antibiotics to prevent bacterial growth. It is recommended for plate count methods for foods and dairy products. PDA can be used for growing clinically significant yeast and molds. The nutritionally rich base (potato infusion) enhances mold sporulation and pigment production in some dermatophytes.

METHOD PRINCIPLE

Potato Dextrose Agar is recommended by APHA (1) and F.D.A. (2) for plate counts of yeasts and molds 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), EP (7) and JP (8) for growth of fungi. 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 as it may hydrolyze the agar which can render the agar unable to solidify.

MEDIA COMPOSITION

Item	Formula per liter of medium
Potato Extract	4 gm.
Glucose	20 gm.
Agar	15 gm.

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.

S56: dispose of this material and its container at hazardous or special waste collection point.
S57: use appropriate container to avoid environmental contamination.
S61: avoid release in environment.

For further information, refer to the Potato Dextrose agar material safety data sheet.

STORAGE AND STABILITY

BioScien Potato Dextrose Agar plate should be stored on recipient at 15-25°C. Use before expiry date on the label.

Final pH 5.6±0.2 at 25°C

Directions

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

Deterioration

The color of ***BioScien*** Potato Dextrose Agar Plate is Light amber coloured medium in a sterile 90 mm disposable plate. If there are any physical changes or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium

SPECIMEN

Pharmaceutical samples

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile Loops
- Incubator
- Autoclave

PERFORMANCE CHARACTERISTICS

Cultural characteristics are observed after incubation at 20-25 °C for 2-7 days. Recovery rate is considered as 100% for fungus growth on Sabouraud Dextrose Agar.

Microorganism	Growth	Incubation Period (Days)	Incubation Temperature (°C)
Candida albicans (ATCC 10231)	Luxuriant	2-3	20-25
Aspergillus brasiliensis (ATCC 16404)	Luxuriant	5-7	20-25
Aspergillus fumigatus (ATCC 9197)	Luxuriant	5-7	20-25
Saccharomyces cerevisiae (ATCC 9763)	Luxuriant	2-5	30-35
Rhodotorula mucilaginosa (DSM 70403)	Luxuriant	3-5	20-25
Geotrichum candidum (DSM 1240)	Luxuriant	3-5	25-30
Penicillium communae (ATCC 10248)	Fair-good	3-5	25-30
Trichophyton ajelloi (ATCC 28454)	Fair-good	3-7	25-30
Fusarium solani (ATCC 36031)	Luxuriant	3-5	20-25

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact ***BioScien*** technical support.

REFERENCES

1. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th 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
5. The United States Pharmacopoeia, 2016, The United States Pharmacopoeial Convention. Rockville, MD.
6. British Pharmacopoeia, 2016, The Stationery office British Pharmacopoeia
7. European Pharmacopoeia, 2014, European Dept. for the quality of Medicines.

SYMBOLS IN PRODUCT LABELLING			
IVD	For in-vitro diagnostic use	Σ	Number of <n> test in the pack
LOT	Batch Code/Lot number		Caution
REF	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		

EC REP

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