Biomed Global

Rev: 0

Potato Dextrose Agar | Ready-to-use Media

a product by Biomed MDX

Effective Date: 15/11/2024

REF FP90P1001

Intended Use:

For the cultivation and enumeration of yeasts and moulds.

Principle of the Procedure:

Potato Dextrose Agar (PDA) supplemented with tartaric acid is a microbiological growth medium specifically formulated to enhance the cultivation of fungi while significantly inhibiting the growth of bacteria. The addition of tartaric acid lowers the pH of the medium, creating an acidic environment that is unfavorable for the majority of bacterial species. This increased acidity provides a more selective environment, favoring the growth of fungal organisms, including yeasts and molds, while suppressing the proliferation of bacterial contaminants.

Product Summary:

Fungal infections are becoming more common and more dangerous. They often spread throughout the body or occur alongside other serious illnesses like AIDS or cancer, especially in people with weakened immune systems. Candidiasis is now a major problem for people with these conditions. Unfortunately, we have few effective antifungal drugs, and fungi quickly become resistant. As a result, fungal infections are now more deadly than bacterial infections[1]. Potato dextrose agar (PDA) is the most widely used medium in fungal isolation and culture[2].

Formulation* (PER LITER):

Potato Starch (from infusion)**	4.0g	**Agar**	15.0g
Dextrose	20.0g	**Tartaric Acid**	10.0g

pH 3.5 +/- 0.1

*Adjust and/or supplemental as required to meet performance criteria

**Approximates 200g of infusion from potatoes

Procedure

Materials Provided

90mm PDA Agar.

Materials Required But Not Provided

Ancillary culture media, reagents, and laboratory equipment as required.

Test Procedure

1. Inoculate and streak the specimen as soon as possible after it is received in the laboratory with an aseptic technique.
2. Incubate at 35 ± 2°C for 48 hours.
3. Observe the result according to user requirements.
4. Dispose of all used reagents and contaminated materials as infectious waste. Laboratories must handle and dispose of all waste safely according to regulations.

Results

Examine for fungal colonies exhibiting typical microscopic and colonial morphology. Appropriate biochemical or immunological tests may be required for final identification

Quality Control

Inoculate representative samples with the following strains. Incubate the inoculated plates at 35 ± 2°C for 48 hrs. to allow colonies to develop on the medium.

Strains	ATCC®	Growth Results
Candida albicans	60193	Growth at 72 hours
Trichophyton mentagrophytes	9533	Growth at 72 hours
Uninoculated plate	-	No growth

Transportation:

Temperature fluctuations may occur during transportation. However, these fluctuations do not affect the performance, quality, or safety of the media.

Storage and Shelf Life:

Upon receiving, store plates at 2 to 8°C, in their original sleeve wrapping until just before use. Avoid freezing and overheating.

The plates may be inoculated up to the expiration date (see package label) and incubated for the recommended incubation times.

Warning and Precautions:

For in vitro diagnostic use. For Professional Use Only. Do Not Reuse.

Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration.

Limitations of the Procedure

This medium is for laboratory use only and is not intended for the diagnosis of disease or other conditions. Identifications are presumptive and colonies should be identified using appropriate methods

Reference

1. Liu, Y., Tortora, G., Ryan, M. E., Lee, H. M., & Golub, L. M. (2002). Potato dextrose agar antifungal susceptibility testing for yeasts and molds: evaluation of phosphate effect on antifungal activity of CMT-3. *Antimicrobial agents and chemotherapy*, *46*(5), 1455-1461.
2. Su, Y. Y., Qi, Y. L., & Cai, L. (2012). Induction of sporulation in plant pathogenic fungi. *Mycology*, *3*(3), 195-200

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Packaging Symbol

Symbol	Definition
REF	Catalogue number
IVD	In Vitro Diagnostic Medical Device
LOT	Batch code
	Date of manufacture
	Temperature limit
	Use-by date
	Keep away from sunlight
	Do not re-use
	Fragile, handle with care
	Consult instructions for use or consult electronic instructions for use
	Do not use if packaging damaged and consult instructions for use
	Manufacturer

Further Information:

For further information please contact your Biomed MDX representative.

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