POTATO DEXTROSE AGAR

PDAG-00I-500

- **Principle**

Potato Dextrose Agar (PDA) is a general-purpose medium used for the cultivation of yeasts and moulds. It is formulated with potato infusion, dextrose and agar. The potato infusion provides a rich source of nutrients, including amino acids, vitamins and trace elements required for fungal growth. Dextrose serves as an additional carbon and energy source, promoting rapid and abundant development of fungal colonies. The potato infusion also supports sporulation and enhances pigment production in certain fungal species, facilitating colony recognition. The naturally acidic pH of the medium makes it partially selective for fungi by reducing the growth of many bacteria. Agar is included as the solidifying agent.

- **Regulatory compliance**

This product is manufactured under a quality management system in accordance with ISO 9001 and ISO 13485, and its formulation and quality control comply with applicable international standards, such as ISO 11133, where relevant.

- **Composition**

Ingredients	**g/L**
Infusion from potatoes (200 gm)	4
Dextrose	20
Agar	15

- **Preparation**

Dissolve 39 grams in 1,000 ml distilled water. Sterilize by autoclaving at 15 lbs. pressure (121 °C) for 15 min, cool it to 42-45 °C. Distribute aseptically in desired and allow to solidify. Ensure complete solidification and inoculate test sample aseptically.

For more selectivity to fungi, reduce the pH of medium to 3.6 to inhibit bacterial growth. Dissolve 39 grams in 1,000 ml distilled water. Sterilize by autoclaving at 15 lbs pressure (121 °C) for 15 min, cool it to 45-50 °C. Add 10% sterile tartaric acid (approximately 1ml) till pH reaches to 3.6, mix well and distribute in desired (avoid reheating the medium). Ensure complete solidification and inoculate test sample.

- **Applications and use**

Recommended for the isolation, cultivation and maintenance of yeasts and moulds in food microbiology, pharmaceutical and cosmetic quality control, environmental monitoring and general mycology. It is also commonly used for the enumeration of fungal contamination and for the observation of colony morphology, sporulation and pigment characteristics.

- **Quality control**

Solubility	w/o rests
Appearance	Fine powder
Colour of the dehydrated medium	Beige
Colour of the prepared medium	Amber
Final pH (25 °C)	5.6 ± 0.2

- **Microbiological test**

The optimum incubation for Yeasts and moulds is 25 ± 2°C for 3-5 days.

Microorganism	ATCC	Inoculum (CFU)	Growth	Recovery
Candida albicans	10231	50-100	Luxuriant	≥ 70%
Saccharomyces cerevisiae	9763	50-100	Luxuriant	≥ 70%
Aspergillus brasiliensis	16404	50-100	Luxuriant	≥ 60%

- **Storage**

The product is highly hygroscopic; keep the container always closed and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Temp. Min.:2 °C Temp. Max.:25 °C.

Note: Sterilize media immediately after reconstitution.

- **Bibliography**

Atlas, R. M. (2005). Handbook of media for environmental microbiology. CRC press.

Difco Manual (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.

Rand, M. C., Arnold E. Greenberg, and Michael J. Taras, (1976), Standard methods for the examination of water and wastewater. Prepared and published jointly by American Public Health Association, American Water Works Association, and Water Pollution Control Federation.

- **Product use limitation**

This product is developed, designed and supplied exclusively for research use only. It is not intended for diagnostic applications or drug development, and it is not suitable for administration to humans or animals.