Technical Data Sheet

Potato Dextrose Agar

Ordering number: 1.10130.0500

Potato Dextrose Agar is used for the cultivation, isolation and enumeration of yeasts and molds from foodstuffs and other materials.

This culture medium complies with the recommendations of the American Public Health Association for food (1992) and the United States Pharmacopeia.

Mode of Action

Carbohydrate and potato infusion (Beever and Bollard 1970) promote the growth of yeasts and molds while the low pH value partially inhibits the growth of the accompanying bacterial flora. If the medium is to be used for fungal counts, the pH should be adjusted to approximately 3.5. Fungi grow on this medium to develop typical morphology.

Typical Composition

Potato Infusion (infusion from 200g potatoes)	4 g/l
D(+)-Glucose (=Dextrose)	20 g/l
Agar-Agar	15 g/l

Preparation

Suspend 39 g/l. Autoclave (15 min at 121 C).

The appearance of the plates is clear and yellowish-brown.

The pH value at 25 ℃ is in the range of 5.4-5.8.

If the pH has to be adjusted to 3.5, add approx. 14 ml of a sterile 10 % tartaric acid solution/l at a temperature of 45-50 ℃. After the tataric acid is added, do not reliquefy.

Experimental Procedure and Evaluation

Inoculate by the pour-plate method or by spreading the sample on the surface of the culture medium.

Incubation: up to 5 days at 28 ℃ aerobically.

Experimental procedure depends on the purpose for which the medium is used

Storage

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +15 ℃ to +25 ℃.

After first opening of the bottle the content can be used up to the expiry date when stored dry and tightly closed at +15 ℃ to +25 ℃.

Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 ℃, disinfect, incinerate etc.).

Quality Control

Control Strains	ATCC #	Incubation	Expected Results
Geotrichum candidum	1240 (DSM #)	5 days at 28 ℃	Growth good to very good
Penicillium commune	10428	5 days at 28 ℃	Growth medium to good
Trichophyton ajelloi	28454	5 days at 28 ℃	Growth medium to good

Please refer to the actual batch related Certificate of Analysis.

Quality Control (Spiral Plating Method)

Control Strains	ATCC #	Inoculum CFU	Incubation	Expected Results
Candida albicans	10231	10-100	≤ 5days at 20-25 ℃	Recovery ≥ 70 %
Saccharomyces cerevisiae	9763	10-100	≤ 5days at 20-25 ℃	Recovery ≥ 70 %
Rhodotorula mucilaginosa	70403 (DSM #)	10-100	≤ 5days at 20-25 ℃	Recovery ≥ 70 %
Aspergillus brasiliensis (formerly *A. niger)*	16404	10-100	≤ 5days at 20-25 ℃	Recovery ≥ 50 %

Please refer to the actual batch related Certificate of Analysis.

Aspergillus brasiliensis ATCC 16404
(Formerly *A. niger)*

Saccharomyces cerevisiae ATCC 9080

Literature

American Public Health Association (1992): Compendium of methods for the microbiological examination of foods. 3rd edition.

Beever, R.E. and Bollard, E.G. (1970): The nature of the stimulation of fungal growth by potato extract. J. Gen. Microbiol. **60**: 273-279.

United States Pharmacopeial Convention. (2014): The United States Pharmacopeia 38/National Formulation 33, Supp. 2. Chapter <61> Microbiological examination of non-sterile products: Microbial enumeration tests. Rockville, Md., USA.

Ordering Information

Product	Cat. No.	Pack size
Potato Dextrose Agar	1.10130.0500	500 g
Potato Glucose Agar	1.46726.0020	20 x 90 mm
L(+)-Tartaric Acid	1.00804.0250	250 g

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