POTATO DEXTROSE AGAR

- For in vitro use only - Catalogue No. PP85 & TP85

Our Potato Dextrose Agar is used for the isolation of enumeration of yeasts and molds from a variety of samples.

Potato Dextrose Agar is a simple general purpose medium that is nutritionally rich, which encourages mold sporulation and pigment production. It is recommended by the American Public Health Association (APHA) for the enumeration and testing of foods and dairy products. Potato infusion and dextrose are the nutritional components of the medium, which supply carbon, nitrogen, and energy needed for propagation. The incubation time varies depending on the organism and purpose of the test. For enumeration purposes an incubation period of 5 or 7 days is adequate, but for the demonstration of sporulation by some fungi a lengthy incubation period of 4-6 weeks may be required.

If desired 10% sterile tartaric acid can be added when performing the pour plate method to lower the pH of the medium to 3.5. The low pH of the medium will inhibit bacterial growth. Once tartaric acid has been added, the medium cannot be heated without it having a detrimental effect on the gelling properties of the medium. Selective formulations of this product are also available, which contain antibiotics that also limit bacterial growth.

Formula per Litre of Medium

Soluble Potato Infusion	4.0 g
Dextrose	20.0 g
Agar	15.0 g

pH 5.6 ± 0.2

Recommended Procedure

General

1. Allow medium to reach room temperature.
2. Streak specimen onto the medium as to obtain isolated colonies
3. Incubate aerobically at room temperature and, if warranted, at 35°C for up to 4 weeks.
4. Examine after 48 hours, 5days, and weekly there after.

Pour Plate Method

1. Allow medium to reach room temperature.
2. Liquify Potato Dextrose Agar tubes by steaming or boiling and cool them to 40-45°C in a warm water bath.
3. Obtain test sample and dilute as required.
4. Add 1 mL of test sample to a sterile petri dish.
5. Pour the contents of one tube into a sterile petri-dish and swirl gently to thoroughly incorporate the sample into the medium.
6. Allow medium to set on a level surface.
7. Incubate plates at room temperature.
8. Examine after 48 hours, 5days, and weekly there after.

Interpretation of Results

In general, yeasts normally grow as creamy-white colonies usually within 48 hours. Molds will grow as fuzzy colonies of various colors depending on species and may require a lengthy incubation period. Some molds may require as long as 4 weeks at room temperature for observable growth therefore all cultures should be held 4-6 weeks before

reporting them as negative. If the plates are held longer than 7 days, seal the plates with petrifilm or tape to avoid excess dehydration of the medium, or alternatively purchase a double-pour of the medium (Cat No: PP85DP).

For enumeration purposes, count the number of colonies on the plate and consider the dilution factor to obtain the final count for the sample.

- *Extra care must be taken when handling culture plates since molds can form and easily release spores into the surrounding environment*

Quality Control

After checking for correct pH, colour, depth, and sterility, the following organisms are used to determine the growth performance of the completed medium.

Organisms	Expected Results
Candida albicans ATCC 10231	Growth
Aspergillus niger ATCC 16404	Growth

Storage and Shelf Life

Our Potato Dextrose Agar should be stored away from direct light at 4°C to 8°C with the medium side uppermost to prevent excessive accumulation of moisture on the agar surface. Under these conditions this medium has a shelf life of 12 weeks from the date of manufacture.

Ordering Information

Cat#	Description	Format
PP85	Potato Dextrose Agar [Standard 15x100-mm plate]	10/pkg
PP85DP	Potato Dextrose Agar (Double Pour) [Standard 15x100-mm plate]	10/pkg
PP86	Potato Dextrose Agar [Standard 15x100-mm plate]	10/pkg
TP85-16	Potato Dextrose Agar Slant 16-mL [20x150-mm screw-cap tube]	10/pkg
TP85-18	Potato Dextrose Agar 18-mL [20x150-mm screw-cap tube]	10/pkg

References

1. Vanderzant C, Splittstoesser DF. Compendium of methods for the microbiological examination of foods. 3rd ed. Washington, DC:APHA, 1992.
2. United States Pharmacopoeial Convention. The United States Pharmacopeia. 22nd ed. Rockville, MD, 1990.
3. MacFaddin JF. Media for isolation cultivation identification maintenance of medical bacteria, vol 1. Baltimore, MD: Williams and Wilkins, 1985.

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