POTATO DEXTROSE AGAR TM 344

For cultivation and enumeration of yeasts and molds

Composition

Ingredients	Gms/Ltr.
Dextrose	20.00
Agar	15.00
Potato infusion from	4.00

* Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight.
[4.0gm of potato extract is equivalent to 200gm of infusion from potatoes]**

Instructions for use

Dissolve 39gms in 1000ml distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes. Cool at room temperature and dispense into sterile petri - plates.

Appearance: Light yellow colour, slightly opalescent
pH (at 25°C): 5.6 ± 0.2

Principle

POTATO DEXTOSE AGAR is used for the isolation and enumeration and culturing of yeast and molds from samples. It can also be used in the identification of fungi and yeasts in parallel with their cellular morphology or in methods of micro cultivation in slides. Dextrose and Potato infusion (BEEVER and BOLLARD 1970) promote the growth of yeasts and moulds while the low pH value partially inhibits the growth of the accompanying bacterial flora. Agar is a solidifying agent. If the medium is to be used for fungal counts and enumeration of yeasts and mold, the pH should be adjusted to approximately 3.5 to inhibit bacterial count. By the addition of sterilized 10% tartaric acid solution to 1000ml of sterilized medium to obtain a pH of 3.5. Fungi grow on this medium to develop typical morphology. This general-purpose medium can be supplemented with acid or antibiotics to inhibit bacterial growth.

NOTE: Do not re-heat the adjusted medium after adding the acid because the agar may hydrolyses and may not solidify.

Interpretation

Cultural characteristics observed after inoculating (10^3CFU/ml), on incubation at 25°C for 3 – 5 days (fungi) and at 30- 35°C for 72 hours (yeast & molds).

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth
**Aspergillus brasiliensis*	16404	Point inoculation	Good
Candida albicans	10231	10^3	Good
Sacchromyces cerevisiae	9763	10^3	Good
Trichophyton sp.	9533	10^3	Good
Trichophyton rubrum	28188	10^3	Good

Note:* - Formerly known as *Aspergillus niger*.

References

1. Mac Faddin, J. F. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol.1. Williams & Wilkins, Baltimore, MD. (1985).
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