

Potato Dextrose Agar - Instructions for Use

Intended Use

BACGro™ Potato Dextrose Agar, when prepared as directed, is intended for the cultivation, isolation, and enumeration of yeasts and molds. Potato Dextrose Agar is not intended for use in diagnosis, treatment, or prevention of disease in humans.

Product Summary

Potato Dextrose Agar is recommended for yeast and mold plate count methods by multiple references^{1,2}. The media itself is non-selective, but can be supplemented with antibiotics or acidified to inhibit bacterial growth.

The media is prepared using an infusion from 200g of potatoes, which provides a rich environment and along with the inclusion of dextrose promotes fungal growth. Agar serves as a solidifying agent. In order to reduce bacterial growth, the media can be acidified to a pH of 3.5 using a sterile solution of tartaric acid; however, it is important to not reheat acidified media as it will result in hydrolysis of the agar and the media will not re-solidify. Alternatively, antibiotics may be added to the media to inhibit bacterial growth.

Formulation (per Liter)*

Potato Infusion (from 200g potatoes)	4.0 g
Dextrose	20.0 g
<u>Agar</u>	<u>15.0 g</u>
Total	39.0 g/L

*Formula may be supplemented and/or adjusted as required to meet performance criteria

Note: Potato Dextrose Agar with Chloramphenicol is also available, containing 100mg of chloramphenicol per Liter.

Directions

1. Add 39 g of Potato Dextrose Agar powder to 1L purified water.
2. Stir while heating. Bring to a soft boil to completely dissolve.
3. Autoclave at 121 degrees Celsius for 15 minutes.
4. Cool prior to use.

Precautions

This product is for laboratory use only and should only be used by qualified, trained laboratory personnel. Personnel should always use proper aseptic technique and observe all biohazardous precautions. All microbiological cultures should be presumed to be infectious.

Avoid ingestion, inhalation, or contact with skin and mucous membranes. If contact occurs, flush the area with clean water.

Quality Control Specifications

Gold Standard Diagnostics tests each lot of manufactured BACGro™ culture media utilizing appropriate control organisms and specifications as documented on the Certificate of Analysis. End users should perform quality control testing in accordance with government regulatory requirements and accreditation guidelines. The following specifications are routinely used for testing:

Appearance (dehydrated): Light beige, homogenous, free flowing powder, free of debris

Appearance (prepared): Pale to light yellow, clear or with slight haze, with no precipitate or debris

pH (prepared): 5.4 – 5.8 at 25°C

Organism Performance:

Strain ID				
	Inoculum	Time	Temp.	Result
<i>Aspergillus niger</i> (ATCC® 16404)	≤100 CFU	5 days	25 – 30° C	Growth
<i>Candida albicans</i> (ATCC® 10231)	≤100 CFU	5 days	25 – 30° C	Growth
<i>Saccharomyces cerevisiae</i> (ATCC® 9763)	≤100 CFU	5 days	25 – 30° C	Growth
<i>Trichopyton mentagrophytes</i> (ATCC® 9533)	≤100 CFU	5 days	25 – 30° C	Growth

Limitations of the Procedure

This product is not labeled for use as a medical device, and is not intended to diagnose, treat, or prevent disease.

Due to variation in nutritional requirements, some strains may be encountered that grow poorly in this medium.

Acidified media should not be reheated as it will result in hydrolysis of the agar.

Storage and Expiration

BACGro™ Potato Dextrose Agar and Potato Dextrose Agar w/ Chloramphenicol should be stored at 2 – 30 degrees Celsius. Because of the hygroscopic nature of dehydrated culture media, it should be stored in a dry place and the lid should remain tightly sealed. Media should be discarded if it is not free flowing or shows discoloration.

The expiration date printed on the label is applicable to media stored as directed.

Catalog Numbers

DCM3405 – Potato Dextrose Agar, 5kg

DCM3410 – Potato Dextrose Agar, 10kg

DCM3510 – Potato Dextrose Agar w/ Chloramphenicol, 10kg

¹ Downes and Ito (ed). (2001). *Compendium of Methods for the Microbiological Examination of Foods*, 4th Ed. American Public Health Association, Washington, DC.

² US Food and Drug Administration. *Microbiological Methods and Bacterial Analytical Manual (BAM)*. <https://www.fda.gov/food/laboratory-methods-food/microbiological-methods-bacteriological-analytical-manual-bam>