

## 17204 Potato Glucose Rose bengal Agar (Base) NutriSelect® Plus

For promoting ascospore production.

### Composition:

Ingredients	Grams/Litre
Potatoes infusion	200.0
Dextrose (=Glucose)	20.0
Rose Bengal	0.0084
Agar	15.0

Final pH 5.6 +/- 0.2 at 25°C

Store dehydrated powder below 30°C in a tightly closed container and the prepared medium at 2-8°C.

Appearance(color): Faint red to red or faint Purple to purple, free flowing powder

Gelling: Firm, comparable with 1.5% Agar gel

Color and Clarity: Pink coloured clear to slightly opalescent gel forms in Petri plates

### Directions:

Suspend 39 g in 1 litre distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 121°C for 15 minutes. Mix well before dispensing.

### Principle and Interpretation:

Potato dextrose agar (PDA) is a general-purpose basal medium recommended by APHA (3) and F.D.A. (4) for the identification, cultivation, and enumeration of yeast and molds in foods and dairy products (5). Since it stimulates sporulation and pigmentation, it also aids in cultivating and differentiating pathogenic and non-pathogenic fungi (1). Potato Dextrose Rose Bengal Agar enhances ascospore production (2).

The potato infusion and dextrose as a carbohydrate source support the luxuriant growth of fungi and bacteria. Acidifying the medium to pH 3.5 by sterile tartaric acid inhibits bacterial growth that can impede the yeasts and mold. Agar acts as a solidifying agent. Heating the medium after acidification should be avoided as it may hydrolyse the agar, which can render the agar unable to solidify. Rose bengal is the eosin-related dye which inhibits the spreading of some rapidly growing fungi and has antibacterial properties as well.

Cultural characteristics after 4-5 days at 22-25°C.

Organisms (ATCC/WDCM)	Inoculum (CFU)	Growth	Recovery	Ascospore formation
<i>Aspergillus brasiliensis</i> (16404/-)	50-100	+++	-	negative
<i>Candida albicans</i> (10231/-)	50-100	+++	≥70%	negative
<i>Saccharomyces cerevisiae</i> (9763/-)	50-100	+++	≥70%	positive



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## References:

1. MacFaddin J. F., 1985, Media for the Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol.1, Williams and Wilkins, Baltimore.
2. Speck M. L., (Eds.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd Ed., APHA, Washington, D.C.
3. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
4. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.
5. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.

## Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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