

## 70139 Potato Glucose Agar

Recommended for the isolation, and enumeration of yeasts and molds in dairy products and food. This culture medium complies with the recommendations of the APHA for food (1992), the USP (1995) and the FDA (1995).

### Composition:

Ingredients	Grams/Litre
Potato extract	4.0
Dextrose	20.0
Agar	15.0
Final pH 5.6 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

### Directions:

Suspend 39 g in 1 litre of distilled water. Bring to the boil to dissolve completely. Sterilize by autoclaving at 121°C for 15 minutes. In order to suppress bacterial growth, 10% sterile lactic acid or 10% tartaric acid solution can be added for dropping pH to 3.5. Mix well before pouring. The plates are clear and yellowish-brown.

### Principle and Interpretation:

Potato extract serves as a source of carbon, nitrogen, minerals, vitamins and other essential growth nutrients. Dextrose acts as source of carbohydrate. Agar is added as the solidifying agent. The accompanying bacterial flora is suppressed by the pH value of 3.5. The grow of yeasts and moulds are promoted on this medium and the fungus develop typical morphology. 8.4 mg/l Rose bengal can be added to suppress additionally the development of bacteria and restricts the size and the spreading of mould colonies.

Cultural characteristics after 4-5 days at 22-28°C

Organisms (ATCC)	Growth	Ascospore formation
<i>Aspergillus niger</i> (16404)	+++	-
<i>Saccharomyces cerevisiae</i> (9763)	+++	+
<i>Penicillium comune</i> (10428)	++	-
<i>Candida albicans</i> (10231)	+++	-



## References:

1. R.E. Beever, E.G. Bollard, The nature of the stimulation of fungal growth by potato extract, J. Gen. Microbiol., 60, 273 (1970)
2. United States Pharmacopeia XXIII, Chapter "Microbial Limit Tests", 1995
3. C. Vanderzant, D. Splittstößer (Eds.), Compendium of Methods for the Microbiological Examination of Foods, 3<sup>rd</sup> ed., APHA, Washington, D.C. (1992)
4. US. Food and Drug Administration, Bacteriological Analytical Manual, 8<sup>th</sup> ed., AOAC, Arlington, VA. (1995)
5. R. Marshall, (Ed.), Standard Methods for the Examination of Dairy Products, 16<sup>th</sup> ed., APHA, Washington, D.C. (1992)
6. J. MacFaddin, Media for the Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore (1985)

## 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.

The vibrant M, Millipore, and Sigma-Aldrich are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates. Detailed information on trademarks is available via publicly accessible resources.  
© 2018 Merck KGaA, Darmstadt, Germany and/or its affiliates. All Rights Reserved.

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.

