

PRODUCT INFORMATION AND QUALITY CONTROL SHEET

POTATO DEXTROSE AGAR

I. INTENDED USE

Potato Dextrose Agar is used for the cultivation of fungi.

II. SUMMARY AND EXPLANATION

Potato Dextrose Agar is a general-purpose medium for yeasts and molds that can be supplemented with acid or antibiotics to inhibit bacterial growth. It is recommended for plate count methods for foods, dairy products¹⁻⁴ and testing cosmetics.³ It can be used for growing clinically significant yeast and molds.⁵ The nutritionally rich base (potato infusion) encourages mold sporulation and pigment production in some dermatophytes.⁶

III. PRINCIPLES OF THE PROCEDURE

Potato Dextrose Agar is composed of dehydrated Potato Infusion and Dextrose that encourage luxuriant fungal growth. Agar is added as the solidifying agent.

IV. TYPICAL FORMULA AND APPEARANCE

Appearance = light amber, slightly opalescent
(Approximate formula* per liter of processed water)

Potato Infusion	4.0g
Dextrose	20.0
Agar	15.0

*adjusted and/or supplemented to meet performance criteria.
Final pH: 5.6 ± 0.2 @ 25°C

V. PRECAUTIONS

This product is for IN VITRO diagnostic use only. Culture specimens may contain microorganisms which can be potentially infectious to the user. Strict adherence to aseptic techniques and established precautions against microbiological hazards should be followed throughout the procedure. Carefully dispose of all items which contact patient specimens or isolated bacteria.

VI. STORAGE/SHELF LIFE

Plated media should be stored at 2-8°C (36-46°F), media side up, in the unopened or resealed package protected from light. DO NOT FREEZE OR EXPOSE TO HIGH TEMPERATURES. Allow unopened plates to warm to room temperature prior to inoculation. Prior to and during inoculation procedures, plates should be handled in a manner that minimizes product exposure to the environment. Product which has exceeded the assigned expiration date noted on the label should not be used. Do not use plates that exhibit evidence of drying, cracking, discoloration, microbial contamination or any other signs of deterioration. The presence of excessive condensate may indicate plates which have been damaged by exposure to temperature extremes.

VII. SPECIMEN COLLECTION

The quality of culture results depends primarily on the adequacy and condition of the specimen submitted for examination. Proper specimen collection techniques must be followed to ensure the most accurate culture results. Consult appropriate references for information about the processing and inoculation of specimens for fungal culture. Sterile swabs and collection containers should be used. Plates should be inoculated promptly after specimen collection.

VIII. MATERIALS PROVIDED

Potato Dextrose Agar Plates (10/pkg)

IX. MATERIALS REQUIRED BUT NOT PROVIDED

Incubator maintaining 25-35°C.
Ancillary culture media, reagents and laboratory equipment as required.

X. PROCEDURE

Inoculate the specimen as soon as possible after it is received

in the laboratory. Streak the specimen with a sterile inoculating loop to obtain isolated colonies. Incubate the inoculated plates at 25-30°C, agar side for 5 days or longer.

XI. EXPECTED RESULTS

NCCLS CONTROL ORGANISMS (ATCC STRAINS)

<i>Aspergillus niger</i> (ATCC 16404)	good growth
<i>Candida albicans</i> (ATCC 10231)	good growth
<i>Penicillium roquefortii</i> (ATCC 10110)	good growth
<i>Trichophyton mentagrophytes</i> (ATCC 9533)	good growth

XII. LABORATORY RESULTS

Yeasts will grow as creamy to white colonies. Molds will grow as filamentous colonies of various colors. Count the number of colonies and consider the dilution factor (if the test sample was diluted) in determining the yeast and/or mold counts per gram or milliliter of material.

This medium is intended to be used as a primary isolation medium. Identification of fungal organisms may be made on the basis of typical gross colony morphology, microscopic characteristics, and physiologic and pathologic characteristics. Additional test procedures should be used to confirm findings.

XIII. LIMITATIONS

The ability to detect microorganisms by culture techniques can be affected by the following factors: improper specimen collection, storage and inoculation, improper culture incubation temperatures and atmospheres, improper length of culture incubation, and improper storage and handling of culture media.

XIV. REFERENCES

- Vanderzant, C., and D.F. Splittstoesser (eds.). 1992. Compendium of methods for the microbiological examination of foods, 3rd ed. American Public Health Association, Washington, D.C.
- Marshall, R.T. (ed.). 1993. Standard methods for the examination of dairy products, 16th ed. American Public Health Association, Washington, D.C.
- U.S. Food and Drug Administration. 1995. Bacteriological analytical manual, 8th ed., AOAC International, Gaithersburg, MD.
- United States Pharmacopeial Convention. 1995. The United States Pharmacopeia, 23rd ed. The United States Pharmacopeial Convention, Rockville, MD.
- Murray, P.R., E.J. Baron, M.A. Pfaller, F.C. Tenover, and R.H. Tenover (eds.). 1995. Manual of clinical microbiology, 6th ed. American Society for Microbiology, Washington, D.C.
- Mac Faddin, J.F. 1985. Media for isolation-cultivation-identification –maintenance of medical bacteria, vol.1. Williams & Wilkins, Baltimore, MD.

USER QUALITY ASSURANCE/ QUALITY CONTROL PROCEDURES AND INFORMATION

HealthLink recommends that the following quality assurance and quality control procedures be performed on each batch of product.

I. QUALITY ASSURANCE

The following quality assurance procedures must be performed to assure the product will perform according to its intended use within the assigned expiry date:

1. Daily, document that product storage refrigerator maintains temperature within 2-8°C.
2. Daily, document that laboratory incubator maintains temperature within the recommended range: 22-35°C.

II. QUALITY CONTROL

The following incoming inspection procedures must be performed for each batch (batch = same lot, same shipment) of culture media received in the laboratory:

Inspect plates according to instructions contained in the Section VI "STORAGE/SHELF LIFE"

Note: Notify Technical Service immediately if media does not meet the inspection criteria.

TECHNICAL SERVICE

HealthLink provides a toll free technical service line (1-800-638-2625) to assist with product usage. To have technical questions answered; please call between the hours of 9:00 am to 5:00 pm EST.

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January, 2003

Product No. 1127 Rev. No. New