SABOURAUD DEXTROSE AGAR (7150)

Intended Use
Sabouraud Dextrose Agar is used for the cultivation of fungi.

Product Summary and Explanation
Sabouraud Dextrose Agar (SDA) is a modification of Dextrose Agar described by Sabouraud.[1] SDA is used for cultivating pathogenic & commensal fungi and yeasts. The high dextrose concentration and acidic pH of the formula permits selectivity of fungi.[2] George[3] enhanced SDA with the addition of cycloheximide, streptomycin, and penicillin to produce an excellent medium for the primary isolation of dermatophytes.

Sabouraud Dextrose Agar is used for determining the microbial content of cosmetics,[4] in the mycological evaluation of food,[5,6] and clinically to aid in the diagnosis of yeast and fungal infections.[7,8]

Principles of the Procedure
Enzymatic Digest of Casein and Enzymatic Digest of Animal Tissue provide the nitrogen and vitamin source required for organism growth in Sabouraud Dextrose Agar. The high concentration of Dextrose is included as an energy source. Agar is the solidifying agent.

Formula / Liter
Enzymatic Digest of Casein ..... 5 g
Enzymatic Digest of Animal Tissue..... 5 g
Dextrose..... 40 g
Agar ..... 15 g
Final pH: 5.6 ± 0.2 at 25°C
Formula may be adjusted and/or supplemented as required to meet performance specifications.

Precaution
1. For Laboratory Use.

Directions
1. Suspend 65 g of the medium in one liter of purified water.
2. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.

Quality Control Specifications
Dehydrated Appearance: Powder is homogeneous, free flowing and light beige.

Prepared Appearance: Prepared medium is clear to trace hazy and light amber.

Expected Cultural Response: Cultural response on Sabouraud Dextrose Agar at 25 - 30°C after 2 – 7 days of incubation.

Microorganism	Response
Aspergillus niger ATCC® 16404	growth
Candida albicans ATCC® 10231	growth
Microsporum canis ATCC® 36299	growth
Penicillium roquefortii ATCC® 10110	growth
Trichophyton mentagrophytes ATCC® 9533	growth

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure
Consult appropriate references for recommended test procedures.

Results
Yeasts grow 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.

Storage
Store sealed bottle containing the dehydrated medium at 2 - 30°C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

Expiration
Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if it is not free flowing, or if the medium has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedure
1. Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.
2. Antimicrobial agents incorporated into a medium to inhibit bacteria may also inhibit certain pathogenic fungi.
3. Avoid overheating a medium with an acidic pH, this may result in a soft medium.

Packaging

Sabouraud Dextrose Agar	**Code No.**	**7150A**	**500 g**
		7150B	**2 kg**
		7150C	**10 kg**

References

1. **Sabouraud, R.** 1892. Ann. Dermatol. Syphilol. **3**:1061.
2. **Jarett, L., and A. C. Sonnenwirth (eds.).** 1980. Gradwohl's and parasitic infections, 7th ed. American Public Health Association, Washington, D.C.
3. **Georg, L. K., L. Ajello, and C. Papageorge.** 1954. Use of cycloheximide in the selective isolation of fungi pathogenic to man. J. Lab Clin. Med., **44**:422-428.
4. **Curry, A. S., J. G. Graf, and G. N. McEwen, Jr. (eds.).** 1993. CTFA Microbiology Guidelines. The Cosmetic, Toiletry, and Fragrance Association, Washington, D.C.
5. **Marshall, R. T. (ed.).** 1993. Standard methods for the microbiological examination of dairy products, 16th ed. American Public Health Association, Washington, D.C.
6. **U.S. Food and Drug Administration.** Bacteriological analytical manual, 8thed., AOAC International, Gaithersburg, MD.
7. **Murray, P.R., E. J. Baron, M. A. Pfaller, F. C. Tenover, and R. H. Yolken (eds.).** Manual of clinical microbiology, 6th ed. American Society for Microbiology, Washington, D.C.
8. **MacFaddin, J. F.** 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol.1. Williams & Wilkins, Baltimore, MD.

Technical Information
Contact Acumedia Manufacturers, Inc. for Technical Service or questions involving dehydrated culture media preparation or performance at (410)780-5120 or fax us at (410)780-5470.