

SABOURAUD DEXTROSE AGAR, EMMONS (7204)

Intended Use

Sabouraud Dextrose Agar, Emmons 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 and commensal fungi and yeasts. Emmons modified the formula by adjusting the pH and reducing the dextrose concentration.² This neutral pH enhances recovery of some pathogenic fungi. Sabouraud Dextrose Agar, Emmons is an excellent basal medium, and antibiotics and inhibitors may be added for the selective cultivation and isolation of various microorganisms.

Principles of the Procedure

Enzymatic Digest of Casein and Enzymatic Digest of Animal Tissue provide the nitrogen and vitamin sources required for organism growth in Sabouraud Dextrose Agar, Emmons. 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..... 20 g
 Agar 17 g

Final pH: 6.9 ± 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 47 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. DO NOT OVERHEAT.

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free flowing, and light gray-beige.

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

Expected Cultural Response: Cultural response on Sabouraud Dextrose Agar, Emmons incubated aerobically at 25 - 30°C and examined for growth after 2 – 7 days.

Microorganism	Approx. Inoculum (CFU)	Expected Results
<i>Aspergillus niger</i> ATCC® 16404	Point Inoculation	Growth
<i>Candida albicans</i> ATCC® 10231	10 - 300	Growth
<i>Microsporum canis</i> ATCC® 36299	Point Inoculation	Growth
<i>Penicillium roquefortii</i> ATCC® 10110	Point Inoculation	Growth
<i>Trichophyton mentagrophytes</i> ATCC® 9533	Point Inoculation	Growth

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

Test Procedure

Consult appropriate references for recommended test procedures using Sabouraud Dextrose Agar, Emmons.

Results

Yeasts grow creamy to white colonies. Molds will grow as fuzzy colonies of various colors. Count the number of colonies and consider the dilution factor (if test sample was diluted) to determine 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 expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if appearance 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.

Packaging

Sabouraud Dextrose Agar, Emmons	Code No.	7204A	500 g
		7204B	2 kg
		7204C	10 kg

References

1. **Sabouraud, R.** 1892. Ann. Dermatol. Syphilol. **3**:1061.
2. **Emmons, C. W., C. H. Binford and J. P. Uty.** 1970. Medical mycology, 2nd ed., Philadelphia: Lea and Febiger.

Technical Information

Contact Acumedia Manufacturers, Inc. for Technical Service or questions involving dehydrated culture media preparation or performance at (517)372-9200 or fax us at (517)372-2006.