

Sabouraud Dextrose Agar (SDA)

Solid medium used for the isolation, cultivation, and maintenance of pathogenic and non-pathogenic species of fungi and yeasts.

REF: BS.1/SA01.100.0100	100 Gram	REF: BS.1/SA01.250.0250	250 Gram
REF: BS.1/SA01.500.0500	500 Gram		

CLINICAL SIGNIFICANCE

Sabouraud Dextrose Agar (SDA) was formulated by Sabouraud in 1892 for cultivating dermatophytes. The pH is adjusted to approximately 5.6 in order to enhance the growth of fungi, especially dermatophytes, and to slightly inhibit bacterial growth in clinical specimens. SDA is also used to determine the mycological evaluation of food, contamination in cosmetics, and clinically to help in the diagnosis of yeast and fungal infections.

METHOD PRINCIPLE

Mycological peptone provides nitrogenous compounds. Dextrose acts as a source of energy. Agar acts as a solidifying agent. The low pH favors fungal growth and inhibits contaminating bacteria. Antibiotics like chloramphenicol, gentamicin, and tetracycline can be added as selective agents to inhibit the overgrowth of competing bacteria while permitting the successful isolation of fungi and yeasts. Various other modifications are also reported by using cycloheximide, penicillin, streptomycin, neomycin depending upon the intended use.

MEDIA COMPOSITION

Item	Formula per liter of medium
Mycological peptone	10 gm
Dextrose	40 gm
Agar	15 gm

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.

S56: dispose of this material and its container at hazardous or special waste collection point.

S57: use appropriate container to avoid environmental contamination.

S61: avoid release in environment.

For further information, refer to the Sabouraud Dextrose Agar material safety data sheet.

STORAGE AND STABILITY

BioScien Sabouraud Dextrose Agar should be stored between 10-30°C in a firmly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid

lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Final pH 5.6 ± 0.2 at 25°C

PREPARATION

Suspend 65 grams in 1 liter of distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs. pressure. (121 °C) for 15 minutes.

Deterioration

The color of **BioScien** Sabouraud Dextrose Agar is light yellow homogeneous free flowing powder. Prepared Media is light amber in color. If there are any physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium.

SPECIMEN

Blood samples, sputum samples, CSF samples, skin scraping samples, and food samples

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile petri dishes
- Incubator
- Autoclave

PERFORMANCE CHARACTERISTICS

Cultural characteristics observed after 48-72 hours at 28-30 °C.

Microorganism	Result
<i>Aspergillus brasiliensis</i> (ATCC 16404)	Growth is seen as colonies ranging from 10-100 CFU
<i>Candida albicans</i> (ATCC 10231)	Growth is seen as colonies ranging from 10-100 CFU
<i>Saccharomyces cerevisiae</i> (ATCC 9763)	Growth is seen as colonies ranging from 10-100 CFU
<i>Penicillium roquefortii</i> (ATCC 10110)	Growth is seen as point inoculation colonies
<i>Trichophyton mentagrophytes</i> (ATCC 9533)	Growth is seen as point inoculation colonies
<i>Microsporium canis</i> (ATCC 36299)	Growth is seen as point inoculation colonies

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control still out of range please contact **BioScien** technical support.

REFERENCES

1. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
2. Sabouraud K., 1892, Ann. Dermatol. Syphilol, 3:1061.
3. Carlier, G., (1948). Brit. J. Derm. Syph. 60,61.
4. American Type Culture Collection, Manassas, Va., U.S.A.
5. U.S. Pharmacopeia, (1985). 21st Revision. U.S. Pharmacopeial Convention, Inc., Rockville, Maryland.

SYMBOLS IN PRODUCT LABELLING			
	For in-vitro diagnostic use		Number of <n> test in the pack
	Batch Code/Lot number		Caution
	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		