Reference: 5107 **Technical Data Sheet**

Product: **SABOURAUD DEXTROSE AGAR**

CE IVD

Specification

Solid medium for the enumeration and cultivation of fungi according to the Pharmacopeial Harmonised Method and ISO standard.

Presentation

	Packaging Details	Shelf Life	Storage
10 Prepared bottle Bottle 125 ml with: 100 ± 3 ml	1 box with 10 bottles 125 ml Non injectable cap	16 months	8-25ºC

Composition

Composition (g/l):

D(+)-Glucose	40.00
Peptone from casein	5.00
Meat Peptone	5.00
Agar	15.0

Description /Technique

Description

Sabouraud Dextrose Agar is a modification of the classical Sabouraud medium for the cultivation of fungi. This new formula helps to maintain the morphology of fungi, providing a reliable medium for both cultivation and differentiation.
Its selectivity is due to a low pH and a high glucose concentration, which together with incubation at a relatively lower temperature (25 -30°C) favours the growth of fungi while discouraging that of bacteria.
The mixture of peptones employed has been selected to provide the fungi with all their nitrogen requirements.
Since Sabouraud medium's low pH can partially hydrolyze the agar, only the required amount should be prepared and it should not be re-melted. Any overheating will also diminish its gelling capacity.
Should a higher selectivity be required, a variety of inhibitors or selective agents may be added after sterilization, while the medium is still in the molten form. It can also be made differential by adding suitable indicator agents. Some of the inhibitory and differential mixtures most commonly used are listed below:
- Penicillin: at 20.000 u/L, for bacterial inhibition.
- Penicillin and Streptomycin: at 20.000 u/L and 40.000 u/L used for the isolation of Histoplasma in dogs.
- Penicillin and Neomycin: at 20.000 u/L and 40 mg/L for bacterial inhibition.
- Streptomycin and Chloramphenicol: at 40 mg/L and 500 mg/L, for the isolation of Trichophyton verrucosum.
- Colistin, Novobiocin and Cycloheximide: at 8 mg/L, 0.1 mg/L and 30 mg/L, for the isolation of Candida albicans.
- Potassium Tellurite: at 150 mg/L, used for the primary isolation of fungi from scales and scabs.
- Cupric Sulfate, Crystal Violet and Brilliant Green: at 500 mg/L, 2 mg/L and 5 mg/L each, for bacterial inhibition.
- Triphenyltetrazolium chloride (TTC): at 100 mg/L, is the basis of a Pagano-Levin medium for the isolation of Candida albicans, which remains non-pigmented, among other pink coloured pathogenic yeasts.
- Chloramphenicol: for bacterial inhibition at 50,00 mg/L
- Oxytetracycline: for bacterial inhibition at 100 mg/L

Technique

To use, the contents of the bottle should be poured into plates. The melting of the culture medium should be carried out according to the manufacturer's instructions, either in a water bath or microwave oven. Never apply direct heat to melt a medium. The melting temperatures and times depend on the shape of the container, the volume of medium and the heat source. Before melting any medium loosen the screwcap of the container to avoid breaking the container. The medium should be melted only once and used. Media with agar should not be melted repeatedly as their characteristics change with each remelting. Overheating should be avoided as much as prolonged heating, especially with regard to media with an acidic or alkaline pH. Once melted pour the plates using aseptic techniques.
To inoculate, follow standard laboratory methods or the applicable norms. Spiral plate method, streak plating, econometric methods, dilution banks, spread plating etc...
Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.
Incubate the plates right side up aerobically at 20-25ºC for up to 5 days. (Incubation times greater then those mentioned above or different incubation temperatures may be required dpending on the sample, or on the specifications. This medium can be inoculated directly or after enrichment with broth.
After incubation, enumerate all the colonies that have appeared onto the surface of the agar.
Each laboratory must evaluate the results according to their specifications.

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Quality control

Physical/Chemical control

Color : Straw-coloured yellow pH: 5.6 ± 0.2 at 25ºC

Microbiological control

Melt Medium - Prepare Plates - According to harmonized pharmacopoeial monographs, ISO standards and test methods
Spiral Spreading: Practical range 50 - 100 CFU (Productivity).

Aerobiosis. Incubation at 20-25ºC. Reading ≤5 days.

Microorganism	Growth
Candida albicans ATCC® 10231	Good (≥70 %)
Aspergillus brasiliensis ATCC® 16404	Good (≥70 %)
Sacharomyces cerevisiae ATCC® 9763	Good (≥70 %)

Sterility Control

Incubation 48 hours at 30-35ºC and 48 hours at 20-25ºC: NO GROWTH
Check at 7 days after incubation in same conditions

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