

## Sabouraud Dextrose Broth

### Intended Use

Sabouraud Dextrose Broth is a general-purpose medium used for the cultivation of Yeasts, Moulds and Aciduric bacteria.

### Summary

Sabouraud Dextrose Broth is Carlier's modification of the formulation described by Sabouraud for the cultivation of fungi, particularly those associated with skin infections. It is used in qualitative procedures for cultivation of pathogenic and non-pathogenic fungi, particularly dermatophytes. Carlier showed that this medium gives reliable results with *Microsporum audouinii*, *M. canis*, *Trichophyton mentagrophytes*, *T. flavum*, *T. rubrum* and *Candida albicans*. The fungi maintain their typical cultural appearance and thus may be readily identified according to the standard macroscopic characters described by Sabouraud. Sabouraud Dextrose Broth is recommended in the Bacteriological Analytical Manual for cosmetics testing.

### Principle

Mixture of peptone and tryptone provides nitrogenous compounds, carbon and other growth factors. Dextrose/glucose is the carbohydrate source. The low pH of approximately 5.6 is favorable for the growth of fungi, especially dermatophytes and is slightly inhibitory to contaminating bacteria. Various antibiotics can be added to this medium for bacterial inhibition as well as to make it selective for the isolation of pathogenic fungi from material containing large number of other fungi or bacteria.

### Formula\*

Ingredients	g/L
Peptone	5.0
Tryptone	5.0
Dextrose	20.0
Final pH (at 25°C)	5.6 ± 0.2

\*Adjusted to suit performance parameters.

### Storage and Stability

Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

### Type of Specimen

Clinical samples - Skin Scrapings, Pharmaceutical samples.

### Specimen Collection and Handling

Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

### Directions

1. Suspend 30.00 g of the powder in 1000 mL purified / distilled water and mix thoroughly.
2. Boil with frequent agitation to dissolve the powder completely.
3. Dispense as required.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

### Quality Control

**Dehydrated Appearance:** Cream to yellow coloured, homogeneous, coarse free flowing powder.

**Prepared Appearance:** Light amber coloured, clear solution without any precipitate.

**Growth Promotion Test:** Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP/IP and growth is observed after an incubation at 30°C-35°C for ≤ 5 days Sub-culturing is carried out using Sabouraud dextrose agar after enrichment in Sabouraud Dextrose Broth at 30°C-35°C for 24-48 hours.

**Growth Promotion Properties:** The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating  $\leq 100$  cfu of appropriate microorganism at 30°C-35°C for  $\leq 5$  days.

Organism (ATCC)	Growth
<i>Candida albicans</i> 3147 (10231)	Good
<i>Aspergillus brasiliensis</i> WLRI 034(120) (16404)	Good

**Note:** Inoculum for good growth is 10 - 100 cfu.

### Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

### Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

### Reference

1. Carlier G. I. M., 1948, Brit. J. Derm. Syph., 60:61.
2. Sabouraud K., 1892, Ann. Dermatol. Syphilol, 3:1061.
3. The United States Pharmacopoeia, 2011, The United States Pharmacopoeial Convention, Rockville, MD.
4. British Pharmacopoeia, 2011, The Stationery office British Pharmacopoeia.
5. European Pharmacopoeia, 2011, European Dept. for the quality of Medicines.
6. Japanese Pharmacopoeia, 2008.
7. Bacteriological Analytical Manual, 8th Edition, Revision A, 1998. AOAC, Washington D.C.
8. Murray PR, Baren EJ, Jorgensen JH, Pfaller MA, Tenover FC, Tenover MC (editors) 2003, Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.
9. Data on file: Microexpress®, A Division of Tulip Diagnostics (P) Ltd.

### Product Presentation:

Cat No.	Product description	Pack Size
201190090100	Dehydrated Culture Media	100 g
201190090500	Dehydrated Culture Media	500 g
201190092500	Dehydrated Culture Media	2.5 k

### Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.

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