



PRODUCT SPECIFICATION SHEET

Sabouraud Dextrose Broth / Sabouraud Liquid Medium (DM233)

Intended Use

Sabouraud dextrose agar/Sabouraud liquid medium (DM233) is used for cultivation of yeast, mould and aciduric microorganisms.

Product Summary and Explanation

Sabouraud Dextrose Broth is used for culturing yeasts and molds in cosmetics⁽⁹⁾. Sabouraud Dextrose Agar is Carliers modifications⁽¹⁾ of the formulation described by Sabouraud⁽²⁾ for the cultivation of fungi, particularly those associated with skin infections. The medium is also recommended by APHA⁽³⁾. Sabouraud Dextrose Broth is also a modification by Sabouraud⁽⁴⁾ and serves the same purpose as Sabouraud Dextrose Agar. General Chapter <62> of the USP recommends the use of Sabouraud Dextrose Broth when isolating *Candida albicans* from nonsterile pharmaceutical products⁽⁵⁾. Sabouraud Dextrose Broth is also used in sterility test procedures for determining the presence of molds, yeasts and aciduric microorganisms.

Principles of the Procedure

Sabouraud dextrose media are typically supplemented with dextrose to support the growth of fungi. Peptone mycological provides nitrogen, vitamins, minerals, amino acids and growth factors while Dextrose provides the energy source. The low pH favours fungal growth and inhibits contaminating bacteria from clinical specimens⁽⁶⁾. The acid reaction of the final medium is inhibitive to a large number of bacteria and makes the medium particularly well suited for cultivating fungi and acidophilic microorganisms.

Formula / Liter

Ingredients	Gms / Litre
Dextrose	20.00
Mycological, peptone	10.00
Final pH: 5.6 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

Precautions

1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

Directions

1. Suspend 30g of the medium in one liter of deionised water.
2. Heat if necessary to completely dissolve the medium.
3. Autoclave at 121°C, 15 psi pressure, for 15 minutes.
4. Mix well and dispense as desired.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow, homogeneous, free flowing powder
Prepared Medium	Light Amber colored, slightly opalescent gel.





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Reaction of 3.0% Solution	pH 5.6 ± 0.2 at 25°C
Gel Strength	Not Applicable

Expected Cultural Response: Cultural response on Sabouraud Dextrose Broth at 20-25°C after 3-5 days of incubation.

Sr. No.	Organisms	Results to be achieved	
		Inoculum (CFU)	Growth
1.	<i>Candida albicans</i> ATCC 10231	50-100	Luxuriant
2.	<i>Candida albicans</i> ATCC 2091	50-100	Luxuriant
3.	<i>Aspergillus brasiliensis</i> ATCC 16404	50-100	Luxuriant
4.	<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	Luxuriant
5.	<i>Saccharomyces cerevisiae</i> ATCC 2601	50-100	Good-Luxuriant

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

Test Procedure

- For clinical specimens, refer to appropriate standard references for details on testing protocol to obtain isolated colonies from specimens using Sabouraud Dextrose Agar and Sabouraud Dextrose Broth⁽⁷⁻⁹⁾.
- For cosmetic, food or environmental monitoring samples, refer to appropriate standard references for details on test methods using Sabouraud Dextrose Agar or Sabouraud Dextrose Broth⁽¹⁰⁻¹³⁾.
- For pharmaceutical samples, refer to *USP* General Chapters <61> and <62> for details on the examination of nonsterile products and performing microbial enumeration tests and the isolation of *Candida albicans* using Sabouraud Dextrose Agar and Sabouraud Dextrose Broth⁽⁵⁾.
- For isolation of fungi from potentially contaminated specimens, a selective medium should be inoculated along with the nonselective medium. Incubate the containers at 25-30°C with increased humidity. All cultures should be examined at least weekly for fungal growth and should be held for 4-6 weeks before being reported as negative.

Results

- After sufficient incubation, Examine containers for fungal growth exhibiting typical color and morphology.
- Subculture colonies of interest so that positive identification can be made by means of biochemical testing and/or microscopic examination of organism smears.

Storage

Store the sealed bottle containing the dehydrated medium at 10- 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

Expiration

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

Limitations of the Procedure

Some fungi may be inhibited by the acidic pH of the medium and by the antimicrobics in the selective media⁽⁶⁻⁷⁾.





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Packaging

Product Name: Sabouraud Dextrose Broth

Product Code : DM233

Available Pack sizes : 100gm / 500gm

References

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13. Wehr and Frank (ed.). 2004. Standard methods for the examination of dairy products, 17th ed. American Public Health Association, Washington, D.C.

Further Information

For further information please contact your local MICROMASTER Representative.



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