

PRODUCT SPECIFICATION SHEET

Sabouraud Agar w/ 4% Glucose (DM1412)

Intended Use

Sabouraud Agar w/ 4% Glucose (DM1412) is recommended for cultivation of yeast, mould and aciduric microorganisms.

Product Summary and Explanation

Sabouraud Agar Glucose 4% is a modification of Sabouraud Dextrose Agar which is described by Sabouraud⁽¹⁾ for the cultivation of fungi (yeasts, moulds), particularly useful for the fungi associated with skin infections. The high glucose concentration and low pH of 5.6 of this medium is favorable for the growth of fungi especially dermatophytes, and slightly inhibitory to contaminating bacteria in clinical specimen. ^(2,3) This medium is also employed to determine microbial contamination in food, cosmetics, and clinical specimens.⁽⁴⁾

Principles of the Procedure

Sabouraud Agar w/ 4% Glucose contains peptone from casein and peptone from meat which provides nitrogenous compounds. Glucose provides an energy source for the growth of microorganisms. High glucose concentration and low pH favours fungal growth and inhibits contaminating bacteria from test samples.⁽⁵⁾

Formula / Liter

Ingredients	Gms / Liter
Peptone from casein	5.00
Peptone from meat	5.00
Glucose	40.00
Agar	15.00
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 65 grams of the medium in one liter of distilled water.
2. Heat to boiling, to dissolve the medium completely.
3. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.
4. Mix well and pour into sterile petri plates.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow colored, homogeneous, free flowing powder
Prepared Medium	Light amber coloured clear to slightly opalescent gel forms in Petri plates
Reaction of 6.5% Solution	pH : 5.6 ± 0.2 at 25°C
Gel Strength	Firm, comparable with 1.5% Agar gel

Expected Cultural Response:

Cultural characteristics Observed after an incubation at 25-30°C for 48-72 hrs

Sr. No.	Organisms	Results to be achieved			
		Inoculum (CFU)	Growth	Observed Lot value (CFU)	Recovery
1.	<i>Candida albicans</i> ATCC 10231	50 -100	good-luxuriant	35 - 100	≥70%
2.	<i>Aspergillus brasiliensis</i> ATCC 16404	50 -100	good-luxuriant	50 - 100	≥70%
3.	<i>Trichophyton mentagrophytes</i> ATCC 18748	50 -100	Fair-good	35 - 100	-
4.	<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	good-luxuriant	35 - 100	≥70%
5.	<i>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant	35 - 100	≥70%
6.	<i>Escherichia coli</i> ATCC 8739	50-100	good-luxuriant	35 - 100	≥70%
7.	<i>Escherichia coli</i> NCTC 9002	50-100	good-luxuriant	35 - 100	≥70%
8.	<i>Trichophyton rubrum</i> ATCC 28191	50-100	good-luxuriant	35 - 100	≥70%

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9.	<i>Lactobacillus casei</i> ATCC 334	50-100	good-luxuriant	35 - 100	>=70%
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The organisms listed are the minimum that should be used for quality control testing.

Test Procedure

Refer to appropriate references for standard test procedures.

Results

Refer to appropriate references and standard test procedures for interpretation of results.

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

1. Some pathogenic fungi may produce infective spores which are easily dispersed in air, so examination should be carried out in safety cabinet.
2. For heavily contaminated samples, the plate must be supplemented with inhibitory agents for inhibiting bacterial growth with lower pH.
3. Consult appropriate texts for detailed information and recommended procedures.

Packaging

Product Name : Sabouraud Agar w/ 4% Glucose

Product Code : DM1412

Available Pack sizes : 500gm

References

1. Sabouraud R., 1892, Ann. Dermatol. Syphil. 3 : 1061.
2. Emmons C., Binford C, Uty J. and Kwon-Chung, 1970, Medical Mycology, 2nd Edi, Philadelphia: Lea and febiger.
3. Ajello, George, Kaplan and Kaufman, 1963. CDC laboratory manual for medical mycology. PNS Publication No.994 U.S Government Printing office, Washington, D.C
4. Bacteriological Analytical Manual, 8th Edition, Revision A, 1998. AOAC, Washington D.C.
5. Murray PR, Baren EJ, Jorgensen JH, Pfaller MA, Tenover FC, Tenover RH (editors) 2003, Manual of clinical Microbiology, 8th ed., ASM, Washington, D.C.

Further Information

For further information please contact your local MICROMASTER Representative.



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