

Technical Data Sheet

GranuCult® prime SABOURAUD 2% dextrose agar (SDA) acc. ISO

Ordering number: 1.03873.0500

For the cultivation of yeasts and moulds from different materials and for usage as a reference medium during performance testing of culture media.

SABOURAUD 2% dextrose agar (SDA) acc. ISO is also known as Sabouraud 2% glucose agar (SAB).

It complies with the specifications given by EN ISO 11133 for the usage as a reference medium during performance testing of culture media.

This culture medium is released by the quality control laboratory of Merck KGaA, Darmstadt, Germany. The laboratory is accredited by the German accreditation authority DAkkS as registered test laboratory D-PL-15185-01-00 according to DIN EN ISO/IEC 17025 for the performance testing of media for microbiology according to DIN EN ISO 11133.

Mode of Action

The formulation of this culture medium is based on the modification of Dextrose agar described by Sabouraud. Emmons modified the original formula by reducing the dextrose content from 40 to 20 g/l. Emmons also modified the pH to bring it closer to the neutral range. For SABOURAUD 2% dextrose agar (SDA) acc. ISO, the original low pH has been maintained to inhibit bacterial growth.

This culture medium contains peptones for providing nitrogen, vitamins and amino acids. The relatively high concentration of glucose (dextrose) in addition with the low pH promotes the growth, the formation of spores (Conidia and Sporangia) as well as the formation of pigments of yeasts and molds. Growth of bacteria is inhibited due to the low pH. Agar is the solidifying agent.

Typical Composition

ISO 11133 specifies no composition for Sabouraud dextrose agar.

GranuCult® prime SABOURAUD 2% dextrose agar (SDA) acc. ISO	
Peptones	10.0 g/l
D(+)Glucose (Dextrose)	20.0 g/L
Agar-agar*	17.0 g/l
Water	n/a
pH at 25 °C	5.6 ± 0.2

* Agar-Agar is equivalent to other different terms of agar.

Preparation

Dissolve 47.0 g in 1 liter of purified water. Heat in boiling water and agitate frequently until completely dissolved. Autoclave (15 minutes at 121 °C). Do not overheat! Pour to plates.

The dehydrated medium is a granulate with beige color.

The prepared medium is clear to slightly opalescent and yellowish-brown. The pH value at 25 °C is in the range of 5.4 - 5.8.

Before inoculation, allow the prepared medium to equilibrate at room temperature if it was stored at a lower temperature.

There should be no visible moisture on the plates before use. When moisture is present, the plates should be dried for the minimum time required to remove visible moisture, following the procedure as described by EN ISO 11133.

Experimental Procedure and Evaluation

Depend on the purpose for which the medium is used.

For the usage as a reference medium during performance testing of culture media according EN ISO 11133, inoculate and incubate in the same way as the medium under test.

Storage

Store at +15 °C to +25 °C, dry and tightly closed. Do not use clumped or discolored medium. Protect from UV light (including sun light). For *in vitro* use only.

Microbiological Performance

The performance test is in accordance with the current version of EN ISO 11133.

Test method: Performance testing of solid culture media:

Quantitative method (surface spreading technique) and Qualitative method (streaking method)

Quantitative method for solid media (surface spreading technique)	
Test strain	Specification Recovery rate / growth
<i>Saccharomyces cerevisiae</i> ATCC® 9763 [WDCM 00058]	≥ 70 %
<i>Candida albicans</i> ATCC® 10231 [WDCM 00054]	≥ 70 %
<i>Aspergillus brasiliensis</i> ATCC® 16404 [WDCM 00053]	≥ 70 %
<i>Wallemia sebi</i> ATCC® 42694 [WDCM 00182]	≥ 70 %
Qualitative method for solid media (Streaking method)	
<i>Geotrichum candidum</i> DSM 1240	good growth
<i>Penicillium commune</i> ATCC® 10428	good growth

Incubation: 5 days at 25 ± 1 °C, aerobic.

Reference medium: Sabouraud 2% Dextrose Agar.

A recovery rate of 70 % is equivalent to a productivity rate of 0.7.

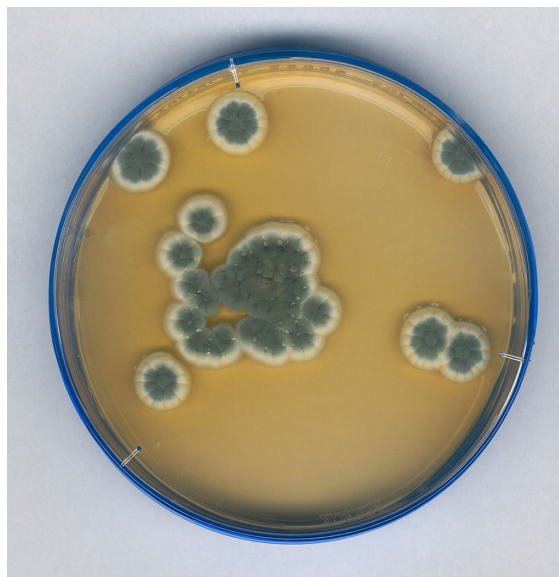
Please refer to the actual batch related Certificate of Analysis.

Literature

EN ISO International Standardisation Organisation. Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media + Amendment 1 + Amendment 2. EN ISO 11133:2014/Amd1:2018/Amd2:2020.

Emmons, C.W., Binford, C.H. and Uty, J.P. (1970): Medical Microbiology, 2nd ed. Lea and Febiger, Philadelphia, USA.

McFaddin J.F. (1985): Sabouraud Culture Media. In: Media for isolation – cultivation – identification – maintenance of medical bacteria. Volume I. pp. 687-691. Lippincott Williams and Wilkins, Baltimore, MD, USA.



Penicillium commune ATCC® 10428
on SABOURAUD 2% dextrose agar
(SDA) acc. ISO



Geotrichum candidum DSM 1240
on SABOURAUD 2% dextrose agar
(SDA) acc. ISO

Ordering Information

Product	Cat. No.	Pack size
GranuCult® prime SABOURAUD 2% dextrose agar (SDA) acc. ISO	1.03873.0500	500 g