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Product Specification Sheet

Sabouraud Glucose Selective Agar

with Gentamicin and Chloramphenicol

Intended Usage: An acid pH medium for the isolation of dermatophytes, other fungi and yeasts.

For professional use only.

	PO5096A
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Thermo Scientific™ Sabouraud Glucose Selective Agar with Gentamicin and Chloramphenicol

Form of Product	Poured plate
Storage	2 – 12°C, dark
Filling weight	17 g ± 5 %
Packaging	10 plates wrapped in film
pH	5.6 ± 0.2
Appearance	Ivory, transparent
Shelf life	26 weeks
Intended Usage	An acid pH medium for the isolation of dermatophytes, other fungi and yeasts. For professional use only.
Technique	Depends on the different methods. For information see product information.

Typical formulation*	g/l
Mycological peptone	10.0
Glucose	40.0
Gentamicin	0.1
Chloramphenicol	0.05
Agar	15.0

*Adjusted as required to meet performance standards.

Quality Control

1. Control for general characteristics, labelling and printing.

2. Contamination check
   ≥ 120 h @ 20 – 25 °C, aerobic
   ≥ 120 h @ 30 – 35 °C, aerobic

3. Microbiological control

Positive Control	Growth
Inoculum 50 – 120 colony forming units (cfu) , quantitative **Incubation conditions: 48 – 72 h @ 22 ± 1°C, aerobic**	
Candida albicans ATCC®10231™	2 – 3 mm, white colonies.
Colony counts shall be ≥ 50% of the control medium SAB.	
Inoculum 10^3-10^4 cfu , qualitative, control medium SAB **Incubation conditions: 48 – 72 h @ 22 ± 1°C, aerobic**	
Aspergillus brasiliensis ATCC®16404™	Good growth, white mycelium, black spores.

Negative Control	Growth
Inoculum ≥ 10^4 cfu, quantitative, control medium TSA **Incubation conditions: 48 – 72 h @ 22 ± 1°C, aerobic**	
Escherichia coli ATCC®25922™	Complete inhibition (≤ 10 cfu).
Pseudomonas aeruginosa ATCC® 27853™	Complete inhibition (≤ 10 cfu).

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Description

Sabouraud glucose agar is frequently used in combination with various antibiotics for selective detection and isolation of moulds. For example, Ajello[1] used chloramphenicol (0.05g/L) and cycloheximide (0.4g/L) – this combination is used in Dermasel selective agar (PO5037A) – while Dolan[2] recommended gentamicin, chloramphenicol and cycloheximide for selective isolation of pathogenic moulds. The use of gentamicin and chloramphenicol leads to the following selective effects with only minimal compromising of the growth properties: Chloramphenicol is a broad spectrum antibiotic that suppresses gram-positive and gram-negative bacteria as well as acid-resistant bacilli; however, the growth of *Pseudomonas* species is only slightly suppressed while gentamicin is particularly effective against *P. aeruginosa*.

Technique

1. Inoculate with the sample, such as skin dandruff, skin pieces, hair, nails, etc. directly or after fragmentation and dilution.
2. Incubate 5-30 days at 25-30 °C and check twice weekly.

Characteristic Colony Morphology

Dermatophytes and fungi grow in typical, characteristic colony shapes. For example, *T. rubrum* forms 2-3 cm large, cream-coloured colonies with white spores and pink-coloured underside, *A. niger* approx. 3-5 cm large, white colonies with black spores and *C. albicans* 2-3 mm large, yellowish and round colonies. For additional, detailed colony descriptions, please refer to the mycological literature, e.g. Seeliger[3].

Literature

1. Ajello, L. (1957), J. Chron. Dis., 5, 545-551.
2. Dolan, C.T. (1971), Appl. Microbiol., 21, 195-197.
3. Seeliger, H.P.R. and T. Hymer (1981): "Diagnostik pathogener Pilze des Menschen und seiner Umwelt. Lehrbuch und Atlas“. G. Thieme-Verlag, Stuttgart-New York.