

Selective Agar for Pathogenic Fungi

For the isolation of pathogenic fungi, particularly dermatophytes, from heavily contaminated sample material.



In Vitro Diagnostic Medical Device –

For professional use only



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Merck KGaA, 64271 Darmstadt

Principle

Microbiological method.

Mode of Action

Cycloheximide is used to select for dermatophytes (GEORG 1953; GEORG et al. 1954). Chloramphenicol largely suppresses bacteria. Certain pathogenic fungi may also sometimes be inhibited, therefore a culture medium devoid of inhibitors should be inoculated as well. TAPLIN (1965) recommends addition of 40 mg gentamicin sulfate/litre (e.g. 0.5 ml gentamicin solution/litre), to suppress chloramphenicol-resistant bacteria, which are occasionally present.

Typical Composition (g/litre)

Peptone from soymeal 10.0; D(+)-glucose 10.0; cycloheximide 0.4; chloramphenicol 0.05; agar-agar 12.5..

Preparation

Suspend 33 g/litre completely, pour plates.

pH: 6.9 ± 0.2 at 25 °C.

The plates are clear and yellowish-brown.

- Do not autoclave, do not overheat.
Avoid reliquefaction.

Storage

Usable up to the expiry date when stored dry and tightly closed at +15 to +25° C. Protect from light.

After first opening of the bottle the content can be used up to the expiry date when stored dry and tightly closed at +15 to +25 °C.

Experimental Procedure and Evaluation

Obtain the sample material by an appropriate method and inoculate on the surface of the culture medium.

Incubation: up to 3 weeks at approximately 28 °C (room temperature); if endomycoses are suspected to be present, at 35 °C as well.

Any fungal colonies which develop can be identified as such (MCDONOUGH et al. 1960) or can be inoculated on media which do not contain inhibitors (e.g. SABOURAUD media) for further differentiation.

*See also General Instruction for Use
„How to use Dehydrated Culture Media“*

*For MSDS, warnings and precautions see our website:
www.merck-chemicals.com*

Specimen

e.g. Nails, hair, skin.

Clinical specimen collection, handling and processing, see general instructions of use.

Literature

AHEARN, D.G.: Systematics of Yeasts of Medical Interest (Pan American Health Organization: International Symposium on Mycoses). – 205; 54-70 (1970).

GEORG, L.K.: Use of cycloheximide medium for isolation of dermatophytes from clinical materials. – Arch. Dermat. Syphil., 67; 355-361 (1953).

GEORG, L.K., AJELLO, D. a. PAPAGEORGE, C.: Use of cycloheximide in the selective isolation of fungi pathogenic to man. – J. Lab. Clin. Med., 44; 422-428 (1954).

HALEY, L.D.: Laboratory Methods in Systematic Mycoses (C.D.C. Course 8170-C, Atlanta, 1969).

MCDONOUGH, E.S., GEORG, L.K., AJELLO, L., a. BRINKMAN, S.: Growth of dimorphic human pathogenic fungi on media containing cycloheximide and chloramphenicol. – Mycopath. Mycol. Appl., 13; 113-120 (1960).

TAPLIN, D.: The use of gentamicin in mycology. – J. Invest. Dermat., 45; 549-550 (1965).

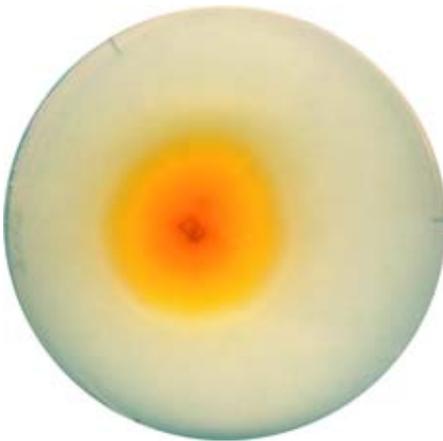
Ordering Information

Product	Ordering No.	Pack size
Selective Agar for Pathogenic Fungi	1.05467.0500	500 g
Merckoplate® Selective agar for pathogenic fungi	1.10415.0001	20 plates
Gentamicin solution	1.11977.0001	10 ml

Selective Agar for Pathogenic Fungi

Quality control

Test strains	Growth
<i>Trichophyton mentagrophytes</i> ATCC 18748	good / very good
<i>Trichophyton rubrum</i> ATCC 28188	fair / good
<i>Microsporum gallinae</i> ATCC 12108	fair / good
<i>Trichophyton ajelloi</i> ATCC 28454	fair / good
<i>Microsporum canis</i> ATCC 36299	good / very good
<i>Geotrichum candidum</i> DSMZ 1240	good / very good
<i>Candida albicans</i> ATCC 10231	good / very good
<i>Aspergillus niger</i> ATCC 16404	none / poor
<i>Penicillium commune</i> ATCC 10428	none / poor
<i>Bacillus cereus</i> ATCC 11778	none



Microsporum canis ATCC 36299



Trichophyton mentagrophytes ATCC 18748