

Technical Data Sheet

Malt Extract Agar

Ordering number: 1.46151.0020

Malt Extract Agar is used for the identification of yeasts and molds in food, including milk and dairy products, and also in environmental samples. It is particularly recommended for the analysis of beverages in which yeasts are a predominant ingredient.

Ten settle plates each with a diameter of 90 mm are single-bagged in transparent, hydrogen peroxide impermeable sleeves (non-irradiated). The sleeves consist of polypropylene with a barrier of PE-EVOH-PE.

Malt Extract Agar is also available as contact plates with the same composition:

- Malt Extract Contact Agar - RT, article number 146191 in 55 mm contact plates

Mode of Action

The low pH of the medium promotes the growth of most yeasts and fungi, while bacterial growth is more or less strongly inhibited. Malt extract has a high content of carbohydrates (90-92 %), but also of nitrogen compounds and vitamins, e.g. riboflavin, pyridoxin, and thiamine. The soymeal peptone content, also rich in carbohydrates, additionally supplies the necessary protein compounds such as peptides and amino acids. This composition facilitates the good growth of yeasts, fungi, and dermatophytes.

Typical Composition

Malt Extract	30 g/l
Soytone	3 g/l
Agar	20 g/l

The appearance of the medium is clear and yellowish. The pH value is in the range of 5.4 to 5.8. The medium can be adjusted and/or supplemented according to the performance criteria required.

Application and Interpretation

Each plate is provided with a label including a data matrix code for paperless plate identification. The code consists of a two-dimensional 20-digit serial number, which harbors the following information:

digits 1-3: here code 211 (corresponds to article 146151); digits 4-9: lot number; digits 10-14: batch specific individual number; digits 15-20: expiration date (YY/MM/DD).

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Please check each agar plate before using it on sterility and pay attention to aseptic handling in order to avoid false positive results.

The culture medium is incubated aerobically for at least 2 days, generally however for 7 - 14 days, at 24-26 °C.

The microscopic assessment (1:200- to 1:1000-fold magnification) is an important indication for the characterization of the cultivated yeasts and fungi. The colonization forms (conidia, helical formations, spiked formations) are frequently of essential importance for the characterization of the fungi.

Storage and Shelf Life

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +2 °C to +8 °C.

The testing procedures as described on the CoA can be started up to the expiry date printed on the label.

Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control for Pharma

Control Strains	ATCC #	Inoculum CFU	Incubation	Growth Characteristics
<i>Candida albicans</i>	10231	10-100	4d at 20-25 °C	good growth; whitish, blunt colonies
<i>Saccharomyces cerevisiae</i>	9763	10-100	4d at 20-25 °C	good growth; whitish, blunt colonies
<i>Aspergillus brasiliensis</i>	16404	10-100	4d at 20-25 °C	good growth; bright mycelium, initial sporulation (black conidia)
<i>Penicillium pinophilum</i>	DSM 1960	Dense suspension	4d at 20-25 °C	good growth; whiteto yellowish, dense mycelium, 2-3 cm diameter

Please refer to the actual batch related Certificate of Analysis.

Literature

Galloway, L. D., Burges, R. (1952): Applied Mycology and Bacteriology. Leonard Hill, London.

Merz, W. G., Roberts, G. D. (1995): Detection and recovery of fungi from clinical specimens. In: Manual of Clinical Microbiology. Eds. Murray, P. R., Baron, J., Faller, M. A., Tenover, F. C. and Tenover, R. A. ASM Press, Washington DC, p. 709-722.

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Samson, R.A., Hocking, A.D., Pitt, J.I. and King, A.D. (1992): Modern methods in food mycology. Elsevier. Amsterdam.

Warren N. G. and Hazen, K. C. (1995): Candida, Cryptococcus, and other yeasts of medical importance. In: Manual of Clinical Microbiology. Eds. Murray, P. R., Baron, J., Faller, M. A., Tenover, F.C. and Tenover, R. A. ASM Press, Washington DC, p. 709-737.

Ordering Information

Product	Cat. No.	Pack size
Malt Extract Agar	1.46151.0020	20 x 90 mm plates
Malt Extract Contact Agar - RT	1.46191.0020	20 x 55 mm plates
Malt Extract Agar with Chloramphenicol	1.46729.0020	20 x 90 mm plates
Orange Serum Agar	1.46425.0006	6 x 200 ml bottle
ReadyPlate™ DG 18 Agar ISO 21527	1.46161.0020	20 x 90 mm plates
ReadyPlate™ DG 18 Agar ISO 21527	1.46161.0100	100 x 90 mm plates
ReadyPlate™ 55 m-Green Agar for Membrane Filtration	1.46769.0020	20 x 55 mm plates
ReadyPlate™ 55 KIT m-Green Agar for Membrane Filtration	1.46770.0150	KIT (150 plates & filter)

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