

For Identification of Malassezia

HiCrome Malassezia Agar (Twin Pack)

Recommended for isolation, cultivation and identification of *Malassezia furfur*

M1985

Composition **

Ingredients	Grams/Litre
Part A -	
Peptone special	30.00
Chromogenic mixture	1.40
Agar	15.00
Part B -	
Tween 40 (Polysorbate 40)	10.00
Glycerol mono-oleate	5.00

Final pH (at 25°C) 5.80±0.2

** Formula adjusted, standardized to suit performance parameters

Directions

Suspend 15ml of fluid Part B in 1000 ml distilled/purified water. Add 46.4 grams of Part A. Mix well and heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 45-50°C. Mix well and pour into sterile Petri plates .

Principle and Interpretation

Malassezia is a genus of fungi, naturally found on the skin surfaces of many animals, including humans. Media based on malt extract is appreciated by many microbiologists due to their richness and nutrient balance especially for the cultivation of fastidious microorganisms. With acidic pH, they are used for the isolation, cultivation and maintenance of yeast and moulds.

M. furfur is a lipophilic yeast, therefore in vitro growth must be stimulated by natural oils or other fatty substances. Peptone special provides nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other essential growth nutrients. Low pH favours fungal growth and inhibits contaminating bacteria from test samples (1). Tween 40, Glycerol monooleate enhances the growth of *Malassezia* species as it is a lipophilic yeast. Some pathogenic fungi may produce infective spores which are easily dispersed in air, so examination should be carried out in safety cabinet. For heavily contaminated samples, the plate must be supplemented with inhibitory agents for inhibiting bacterial growth with lower pH.

Type of specimen

Clinical - skin samples

Specimen Collection and Handling

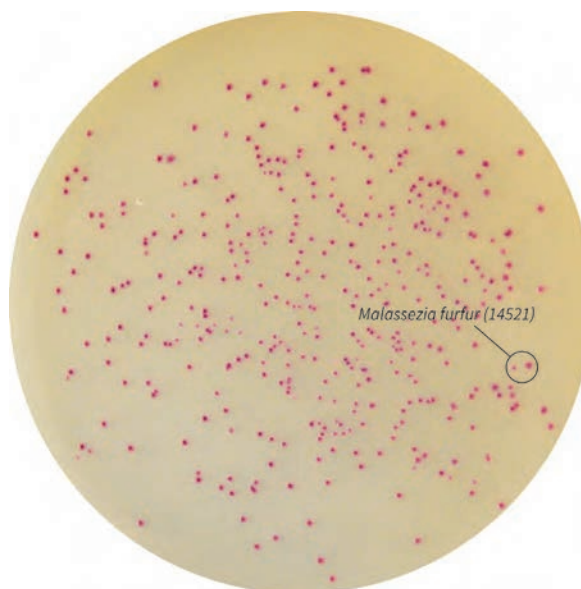
For clinical samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (2, 3). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets

Limitations

1. Due to variable nutritional requirements, some strains may show poor growth on this medium.
2. Slight colour variation may be observed depending upon the utilization of the substrate by the organism.
3. For heavily contaminated samples, the plate must be supplemented with inhibitory agents for inhibiting bacterial growth with lower pH.



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Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the recommended temperature.

Quality Control

- Appearance of Powder** : Part A : Cream to yellow homogeneous free flowing powder Part B: Colourless to pale yellow viscous solution
- Gelling** : Firm, comparable with 1.5% Agar gel.
- Colour and Clarity of prepared medium** : Yellow coloured, opalescent gel with scum forms in Petri plates
- Reaction** : Reaction of 4.64% w/v aqueous solution of Part A and 1.5% v/v of Part B at 25°C. pH : 5.80±0.2
- Cultural Response** : Cultural characteristics observed after an incubation at 35-37°C for 48-72 hours.

Organism (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Malassezia furfur</i> (14521)	50-100	good-luxuriant	≥50%	mauve, small
<i>Candida albicans</i> (10231) (00054*)	50-100	good-luxuriant	≥50%	pale green to green
<i>Candida glabrata</i> (15126)	50-100	good-luxuriant	≥50%	colourless
<i>Candida krusei</i> (24408)	50-100	good-luxuriant	≥50%	purple
<i>Candida tropicalis</i> (750)	50-100	good-luxuriant	≥50%	metallic blue

Key : * : Corresponds to WDCM number

Storage and Shelf-life

Store between 2-8°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Use before expiry date on the label.

Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (2, 3).

References

- Murray PR, Baren EJ, Jorgensen JH, Pfaller MA, Tenover FC, Tenover FC (editors) 2003, Manual of clinical Microbiology, 8th ed., ASM, Washington, D.C.
- Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
- Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1