Trichophyton Agar-4

M534

Intended Use:

Used for differentiation of *Trichophyton* species.

Composition**

Ingredients	g / L
Vitamin free acicase#	2.500
Dextrose (Glucose)	40.000
Magnesium sulphate	0.100
Thiamine hydrochloride	0.0002
Potassium dihydrogen phosphate	1.800
Agar	15.000
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Vitamin free casein acid hydrolysate

Directions

Suspend 59.4 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Dispense in test tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Allow the tubes to cool in slanted position.

Principle And Interpretation

Nutritional tests were originally described by George and Camp (1) as an aid in the routine identification of *Trichophyton* species that seldom produce conidia or that resemble each other morphologically (1). Certain species have distinctive nutritional requirements, whereas others do not.

The method employs a casein basal medium that is vitamin-free (Trichophyton Agar-1, M531) to which different vitamins are added i.e. inositol (Trichophyton Agar-2, M532), thiamine and inositol (Trichophyton Agar-3, M533), thiamine (Trichophyton Agar-4) (M534) and nicotinic acid (Trichophyton Agar-5) (M535). The method also employs an ammonium nitrate basal medium (Trichophyton Agar-6, M536) to which histidine is added (Trichophyton Agar-7, M152) (2). The various additives added help to determine the specific vitamin and amino acid requirements of the isolates. Trichphyton Agar-4 contains added thiamine this medium is used along with Trichophyton Agar-1 to determine the thiamine requirement of isolates.

Nutritional requirements are determined by inoculating a control medium and a medium enriched with a specific vitamin or amino acid with *Trichophyton* isolates that have been presumptively identified by gross colony characteristics and microscopic morphology (1,2,3,4,5,6). Moderate to heavy growth in the vitamin or amino acid-enriched medium compared to little or no growth in the basal medium indicates that the isolate requires that nutrient.

Type of specimen

Isolated Microorganism from clinical sample

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (7,8).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. For professional 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 clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. The specimen should be from general purpose fungal medium and not from any vitamin enriched medium.
2. The medium is recommended for presumptive identification based on nutritional requirements.

Quality Control

Appearance

White to light yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Light amber coloured clear to slightly opalescent gel forms in tubes as slants

Reaction

Reaction of 5.94% w/v aqueous solution at 25°C. pH : 6.8±0.2

pH

6.60-7.00

Cultural Response

Cultural characteristics observed after an incubation at 25- 30°C for 2 weeks.

Organism	Growth
Trichophyton mentagrophytes ATCC 9533	luxuriant
Trichophyton rubrum ATCC 28191	luxuriant

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°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. 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 (7,8)

Reference

1. George L. K., Camp L. B., 1957, J. Bacteriol., 74:113.
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3. Haley L. D., Trandel J. and Coyle M. B., 1980, Cumitech 11, Practical methods for culture and identification of fungi in the clinical mycology laboratory, Coord. Ed., Sherris, American Society for Microbiology, Washington, D.C.
4. McGinnis M. R. and Pasarell L., 1992, In Isenberg (Ed.), Clinical Microbiology Procedures Handbook, Vol. 1, American Society for Microbiology, Washington, D.C.
5. Roberts G. D., 1985, In Washington (Ed.), Laboratory Procedures in Clinical Microbiology, 2nd Ed., Springer- Verlag, New York, N.Y.
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8. 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.

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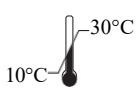

Storage temperature

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