



## Trichophyton Agar No.4

M534

Trichophyton Agar No.4 is used for differentiation of *Trichophyton* species.

### Composition\*\*

Ingredients	Gms / Litre
Vitamin free casein acid hydrolysate	2.500
Dextrose	40.000
Magnesium sulphate	0.100
Thiamine hydrochloride	0.0002
Monopotassium dihydrogen phosphate	1.800
Agar	15.000
Final pH ( at 25°C)	6.8±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

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

### Principle And Interpretation

Nutritional tests were originally described by George and Camp (2) as an aid in the routine identification of *Trichophyton* species that seldom produce conidia or that resemble each other morphologically (2). 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) (1). The various additives added help to determine the specific vitamin and amino acid requirements of the isolates. Trichophyton 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, 3-6). 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.

### 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.

#### Cultural Response

