Dermatophyte Test Medium Slant

**Intended Use:**
Recommended for selective isolation of dermatophytes.

**Composition***

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soya peptone</td>
<td>10.000</td>
</tr>
<tr>
<td>Dextrose (Glucose)</td>
<td>10.000</td>
</tr>
<tr>
<td>Phenol red</td>
<td>0.200</td>
</tr>
<tr>
<td>Agar</td>
<td>20.000</td>
</tr>
<tr>
<td>Dermato supplement (FD015)</td>
<td>2.0 vials</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>5.5±0.2</td>
</tr>
</tbody>
</table>

*Formula adjusted, standardized to suit performance parameters

**Directions**
Streak the test inoculum aseptically into the slant and incubate at appropriate conditions. Incubate the slants at 30-35°C for 18-24 hours.

**Principle And Interpretation**

The Dermatophytes are a distinct group of fungi that infect the hair, skin and nails of humans and animals producing a variety of cutaneous infections known as ringworm (2). Dermatophytes like Trichophyton, Microsporum and Epidermoptophyton are responsible for most of the cutaneous fungal infections (1). DTM Agar Base was developed by Taplin as a selective and differential medium for detection and identification of dermatophytes (2). On this medium identification of Dermatophytes are based on morphology and alkaline metabolites production. A combination of three antimicrobial agents (cycloheximide, chlorotetracycline and gentamicin) inhibits bacteria and saprophytic yeasts and moulds.

Dermatophytes are presumptively identified based on gross morphology and the production of alkaline metabolites, which raise the pH and cause the phenol red indicator to change the color of the medium from yellow to pink-red (2-4). Soya peptone provides nitrogenous and carbonaceous substances essential for growth. Glucose is the energy source. The pH indicator, phenol red, is used to detect amine production. Cycloheximide (5) (as FD) inhibits most of the saprophytic fungi. Gentamicin inhibits gram-negative bacteria including *Pseudomonas* species while chlorotetracycline inhibits a wide range of gram-positive and gram-negative bacteria. The presence of growth on the medium provides presumptive identification of dermatophytes.

D.T.M. Agar helps in isolation and early recognition of members of the *Microsporum, Trichophyton* by means of the distinct colour change from yellow to red. Rapidly growing species may effect a complete colour change within 3 days while slow growers will change colour in proportionately longer time.

Non-Dermatophytes can be recognized by the absence of colour change. A few saprophytes, yeasts and bacteria change the medium from yellow to red, but can be easily distinguished by colonial morphology. Complete classification of Dermatophytes depends on microscopic observations along with biochemical and serological tests.

**Type of specimen**
Clinical samples - Scrapping of skin, hair, nail lesion, scaling scalp lesions

**Specimen Collection and Handling:**
For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5).

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 clinical specimens. Safety guidelines may be referred in individual safety data sheets.

*Please refer disclaimer Overleaf.*
**Limitations :**

1. False-positive reactions may result, if interpretations are made beyond 6 days of incubation.
2. If the abeyant area of an infection is cultured, false-negative reactions may arise.
3. If the specimen is heavily contaminated, saprophytic fungi may result in a color change on the medium.

**Performance and Evaluation**

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

**Quality Control**

**Appearance**

Sterile Dematophyte Test agar slant in glass tube.

**Colour of medium**

Orange red coloured slant

**Quantity of Medium**

8ml of medium in glass tube

**Reaction**

5.30-5.70

**Sterility Test**

Passes release criteria

**Cultural Response**

Cultural characteristics observed after incubation at 25-30°C for upto 6 days.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
<th>Colour of Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td># Aspergillus brasiliensis ATCC 16404 (00053*)</td>
<td>none-poor</td>
<td></td>
</tr>
<tr>
<td>Candida albicans ATCC 10231 (00054*)</td>
<td>good</td>
<td></td>
</tr>
<tr>
<td>Microsporum audouinii ATCC 9079</td>
<td>good</td>
<td>pink-red</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa ATCC 27853 (00025*)</td>
<td>none-poor</td>
<td></td>
</tr>
<tr>
<td>Trichophyton mentagrophytes ATCC 9533</td>
<td>good</td>
<td>pink-red</td>
</tr>
</tbody>
</table>

Key : *Corresponding WDCM numbers.

# - Formerly known as Aspergillus niger

**Storage and Shelf Life**

On receipt store between 2-8°C 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 (4,5).

**Reference**


Please refer disclaimer Overleaf.

Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.