

## Sabouraud Dextrose Agar Base, Modified, Granulated<sup>®</sup> (Dextrose Agar Base, Emmons)

GM286

### Intended Use:

Recommended for selective cultivation of pathogenic fungi.

### Composition\*\*

Ingredients	g / L
Dextrose (Glucose)	20.000
Peptone, special	10.000
Agar	17.000
Final pH ( at 25°C)	7.0±0.2

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

### Directions

Suspend 23.5 grams in 500 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add rehydrated contents of one vial of CC Supplement (FD035). Mix well and pour into sterile Petri plates.

*Note : Avoid undue exposure to heat which encourages hydrolysis of components.*

### Principle And Interpretation

Sabouraud Dextrose Agar is Carliers modifications (1) of the formulation described by Sabouraud (2) for the cultivation of fungi, particularly those associated with skin infections. Sabouraud Dextrose Agar Base, Modified is the modification of Sabouraud medium (2) as described by Emmons (3). Though the low pH of this medium is favorable for the growth of fungi especially dermatophytes, some fungi are inhibited (3, 4). Emmons modified the original formulation by adjusting the pH close to neutral to increase the recovery of fungi and by reducing the dextrose content from 40 to 20 g/l (5). It has reduced dextrose content and a neutral pH (6).

Peptone special is the source of nitrogenous growth factors. Dextrose provides as an energy source. The addition of antibiotics increases the selectivity of the medium (3, 5).

Chloramphenicol is inhibitory to a wide range of gram negative and gram positive bacteria, and cycloheximide is an anti-fungal agent that is active against saprophytic fungi and does not inhibit yeast or dermatophytes (7).

### Type of specimen

Clinical: Skin infections

### Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (8,9).

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 medium does not support the growth of all fungal cultures as it is highly selective.
2. Further biochemical tests must be carried out for confirmation.

### 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

Cream to yellow granulated free flowing powder

**Gelling**

Firm, comparable with 1.7% agar gel.

**Colour and Clarity of prepared medium**

Light amber coloured clear to slightly opalescent gel forms in Petri plates

**Reaction**

Reaction of 4.7% w/v aqueous solution at 25°C. pH : 7.0±0.2

**pH**

6.80-7.20

**Cultural Response**

Cultural characteristics observed with added CC Supplement, Modified (FD035) after an incubation at 25-30°C for 2-3 weeks.

Organism	Inoculum (CFU)	Growth w/ CC supplement	Recovery
# <i>Aspergillus brasiliensis</i> ATCC 16404 (00053*)	50-100	none - poor	
<i>Candida albicans</i> ATCC 10231 (00054*)	50-100	None-poor	<=10%
<i>Escherichia coli</i> ATCC 25922 (00013*)	>=10 <sup>4</sup>	inhibited	0%
<i>Saccharomyces cerevisiae</i> ATCC 9763 (00058*)	50-100	none-poor	<=10%
<i>Trichophyton rubrum</i> ATCC 28191	50-100	luxuriant	
## <i>Trichophyton interdigitale</i> ATCC 9533	50-100	luxuriant	

Key : (\*) - Corresponding WDCM numbers.

(#) - Formerly known as *Aspergillus niger*

## Formerly known as *Trichophyton mentagrophytes*

**Storage and Shelf Life**

Store between 10-30°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. 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 (8,9).

**Reference**

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9. 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.

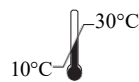
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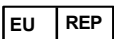
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Plot No.C-40, Road No.21Y,  
MIDC,WagleIndustrial Area,  
Thane (W) -400604, MS, India



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