

## Sabouraud Dextrose HiVeg™ Agar Base, Modified (Dextrose HiVeg™ Agar Base, Emmons)

MV286

Sabouraud Dextrose HiVeg Agar Base, Modified (Dextrose HiVeg Agar Base, Emmons) is used for cultivation of fungi.

### Composition \*\* :

Ingredients	Grams/Litre
HiVeg special peptone	10.0
Dextrose	20.0
Agar	17.0

Final pH (at 25°C) 7.0 ± 0.2

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

### Directions :

Suspend 47 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and aseptically add rehydrated contents of one vial of CC Supplement (FD035). Mix well before pouring in sterile petri plates.

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

### Principle and Interpretation :

Sabouraud Dextrose HiVeg Agar Base, Modified is prepared by using HiVeg special peptone in place of Peptone special which makes the medium free of BSE/TSE risks. Sabouraud Dextrose Agar was devised by Sabouraud for the cultivation of dermatophytes (1). Though the low pH of this medium is favorable for the growth of fungi especially dermatophytes, some fungi are inhibited (2-4). 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 (4). Sabouraud Dextrose HiVeg Agar Base, Modified is the modification of this medium using vegetable peptone instead of animal based peptone.

HiVeg special peptone is the source of nitrogenous growth factors. Dextrose serves as an energy source. The addition of antibiotics increases the selectivity of the medium (3, 4). Chloramphenicol is inhibitory to a wide range of gram negative and gram positive bacteria, and cycloheximide is an antifungal agent that is active against saprophytic fungi and does not inhibit yeast or dermatophytes (5).

### Quality Control :

#### Appearance of powder

Cream coloured, may have slightly greenish tinge,

### Product Profile :

Vegetable based (Code MV)Ⓢ	Animal based (Code M)
MV286 HiVeg special peptone	M286 Peptone Special
<b>Recommended for</b>	: Cultivation of fungi
<b>Reconstitution</b>	: 47.0 g/l
<b>Quantity on preparation (500g)</b>	: 10.63 L
	(100g) : 2.12 L
<b>pH (25°C)</b>	: 7.0 ± 0.2
<b>Supplement</b>	: CC Supplement (FD035)
<b>Sterilization</b>	: 121°C / 15 minutes.
<b>Storage :</b> Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.	

homogeneous, free flowing powder.

#### Gelling

Firm, comparable with 1.7% Agar gel.

#### Colour and Clarity

Yellow coloured, clear to slightly opalescent gel forms in petri plates.

#### Reaction

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

#### Cultural Response

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

#### Organisms (ATCC)

*Aspergillus niger* (16404)

*Candida albicans* (10231)

*Escherichia coli* (25922)

*Saccharomyces cerevisiae* (9763)

*Trichophyton mentagrophytes* (9533)

*Trichophyton rubrum* (28191)

#### Growth

none - poor

poor - good

inhibited

none - poor

luxuriant

luxuriant

### References :

- Sabouraud K., 1892, Ann. Dermatol. Syphilol, 3:1061.
- Ajello, George, Kaplan and Kaufman, 1963. CDC laboratory manual for medical mycology. PNS Publication No.994 U.S Government Printing office, Washington, D.C.
- Patrick R.Murray, Baron, Pfaller, and Tenover (Ed) 2003, In Manual of Clinical Microbiology, 8<sup>th</sup> ASM, Washington, D.C.
- Kwong\_Chung and Bennett.1992. Medical mycology. Lea and Feriger, Philadelphia, Pa.
- Lorian (ed.) 1996. Antibiotics in laboratory medicine, 4<sup>th</sup> ed. Williams and Wilkins, Baltimore, MD.