Brain Heart CC Agar, HiVeg™

Brain Heart CC Agar, HiVeg™ is used for selective isolation and cultivation of fastidious pathogenic fungi from specimens heavily contaminated with bacteria and saprophytic fungi.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Grams/Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>HiVeg special infusion</td>
<td>7.5</td>
</tr>
<tr>
<td>HiVeg infusion</td>
<td>10.0</td>
</tr>
<tr>
<td>HiVeg peptone No. 3</td>
<td>10.0</td>
</tr>
<tr>
<td>Dextrose</td>
<td>2.0</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.0</td>
</tr>
<tr>
<td>Disodium phosphate</td>
<td>2.5</td>
</tr>
<tr>
<td>Chloramphenicol</td>
<td>0.05</td>
</tr>
<tr>
<td>Cycloheximide</td>
<td>0.5</td>
</tr>
<tr>
<td>Agar</td>
<td>15.0</td>
</tr>
</tbody>
</table>

Final pH (at 25°C) = 7.4 ± 0.2

**Directions**

Suspend 52.5 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. Avoid excess heat as it may reduce the selectivity of the medium.

**Warning:** Cycloheximide is very toxic. Avoid skin contact or aerosol formation and inhalation.

**Principle and Interpretation**

This medium is prepared by completely replacing animal based peptones by vegetable peptones. Brain Heart CC HiVeg Agar is the modification of Brain Heart CC Agar formulated as per Ajello, et al (1, 3) and McDonough, et al (2). Chloramphenicol is a broad-spectrum antibiotic which inhibits wide range of gram positive and gram negative bacteria. Cycloheximide inhibits most saprophytic yeast and moulds. It may further be enriched with 10% sheep blood to isolate systemic fungi that grow poorly on nonenriched medium. Also selectivity of it can be improved by the addition of 50 mcg Gentamicin per ml of medium. The antibiotics in this medium may inhibit some fungi. While handling *Histoplasma capsulatum* extreme care should be taken to avoid dissemination of its infective spores. The culture should be examined in a closed filtered air cabinet.

**Quality Control**

**Appearance of powder**

Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

**Product Profile**

<table>
<thead>
<tr>
<th>Vegetable based (Code MV)</th>
<th>Animal based (Code M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MV209</td>
<td>M209</td>
</tr>
<tr>
<td>HiVeg special infusion</td>
<td>Brain infusion</td>
</tr>
<tr>
<td>HiVeg infusion</td>
<td>Heart infusion</td>
</tr>
<tr>
<td>HiVeg peptone No. 3</td>
<td>Proteose peptone</td>
</tr>
</tbody>
</table>

**Recommended for**: Isolation and cultivation of fastidious pathogenic fungi

**Reconstitution**: 52.5 g/l

**pH (25°C)**: 7.4 ± 0.2

**Supplement**: None

**Sterilization**: 121°C / 15 minutes.

**Storage**: Dry Medium and Prepared Medium 2 - 8°C.

**Gelling**

Firm, comparable with 1.5% Agar gel.

**Colour and Clarity**

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

**Reaction**

Reaction of 5.25% w/v aqueous solution is pH 7.4 ± 0.2 at 25°C.

**Cultural Response**

Cultural characteristics observed after an incubation at 25-35°C for 40-96 hours.

**Organisms (ATCC)**

- *Aspergillus niger* (16404)
- *Blastomyces dermatitidis*
- *Candida albicans* (10231)
- *Candida tropicalis* (1369)
- *Escherichia coli* (25922)
- *Histoplasma capsulatum*
- *Trichophyton megninii* (12106)
- *Trichophyton mentagrophytes* (9533)
- *Trichophyton tonsurans* (10220)

**Growth**

- inhibited
- good
- fair - good
- inhibited
- good
- good-luxuriant
- good-luxuriant
- good-luxuriant

**References**