Nutrient HiVeg™ Broth, pH 6.9 w/o NaCl

Intended use
Recommended as general purpose medium for the cultivation of microorganisms.

Directions
Suspend 8.0 grams in 1000 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Dispense into tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation
Nutrient Broth with pH 6.9 and devoid of NaCl is a relatively simple formulation containing HM Peptone B and peptone which can support the growth of non-fastidious microorganisms. It provides nitrogenous and carbonaceous compounds, long chain amino acids and other essential growth nutrients. It has the formula originally developed for use in Standard Methods for the Examination of Water and Waste Water (1). Nutrient HiVeg™ Broth, pH 6.9 w/o NaCl is same as Nutrient Broth, pH 6.9 w/o NaCl except that the animal based peptones are completely replaced with the vegetable peptones to avoid the BSE/TSE risks associated with animal peptones.

HiVeg™ peptone and HiVeg™ extract provides nitrogenous and carbonaceous compounds, long chain amino acids and other essential growth nutrients. If this medium is incorporated with 6.5% sodium chloride, then it acts as a differential and selective agent by interfering with the osmotic balance and the permeability of membrane of majority of microorganisms.

On addition of 6.5% Sodium chloride, the medium can also be used to determine salt tolerance of bile esculin positive Enterococci (4).

Type of Specimen
Water samples.

Specimen Collection and Handling:
For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards.(1) After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions:
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 specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations:
1. This medium is general purpose medium and may not support the growth of fastidious organisms.

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 homogeneous free flowing powder

Colour and Clarity of prepared medium
Light amber coloured clear solution without any precipitate

Please refer disclaimer Overleaf.
Reaction
Reaction of 0.8% w/v aqueous solution at 25°C. pH : 6.9±0.2
pH
6.70-7.10
Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td># Klebsiella aerogenes ATCC 13048 (00175*)</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td>Enterococcus faecalis ATCC 29212 (00087*)</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td>Escherichia coli ATCC 25922 (00013*)</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td>Salmonella Typhi ATCC 6539</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td>Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td>Staphylococcus epidermidis ATCC 12228 (00036*)</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
</tbody>
</table>

Key : *Corresponding WDCM numbers.
# Formerly known as Enterobacter aerogenes

Storage and Shelf Life
Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°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. 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 (2,3).

Reference