

BHI w/6.5% NaCL, HiVeg™

MV1037

Intended Use:

Recommended for propagation of fastidious pathogenic cocci and other organisms associated with blood culture work and allied pathological investigations.

Composition**

| Ingredients | g / L |
|-----------------------------|---------|
| HiVeg™ special infusion | 7.5000 |
| HiVeg™ infusion | 10.000 |
| HiVeg™ peptone No. 3 | 10.000 |
| Dextrose (Glucose) | 2.000 |
| Sodium chloride | 65.000 |
| Disodium hydrogen phosphate | 2.500 |
| Final pH (at 25°C) | 7.4±0.2 |

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 97.0 grams in 1000 ml purified/distilled water. Dispense into tubes or flasks as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. For best results, the medium should be used on the day it is prepared, otherwise, it should be boiled or steamed for a few minutes and then cooled before use.

Principle And Interpretation

Brain Heart Infusion Medium is useful for cultivating a wide variety of microorganisms since it is a highly nutritive medium. Brain Heart Infusion Broth is a modification of the original formulation of Rosenow, where he added pieces of brain tissues to dextrose broth (1).

BHI w/6.5% NaCL, HiVeg™ is employed for the selective cultivation of salt tolerant microorganisms. High concentration of sodium chloride acts as a differential and/or selective agent by interfering with membrane permeability and osmotic and electro kinetic equilibrium in salt intolerant organisms. BHI w/6.5% NaCL, HiVeg™ is prepared by completely replacing animal based peptone with vegetable peptones to avoid BSE/TSE risks associate with animal peptones.

HiVeg™ special infusion and HiVeg™ infusionserve as sources of carbon, nitrogen, essential growth factors, amino acids and vitamins. Dextrose serves as a source of energy. Disodium phosphate helps in maintaining the buffering action of the medium.

Type of specimen

Food samples

Specimen Collection and Handling

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (2). 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 clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations:

1. Heavy inoculation may result into erroneous results.
2. Infusion broth with 6.5% NaCl may produce slow reactions thereby making test interpretation difficult.

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 light yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light amber coloured, clear solution without any precipitate

Reaction

Reaction of 9.7% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH

7.20-7.60

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

| Organism | Inoculum (CFU) | Growth |
|-----------------------------------------------------------------------|------------------|----------------|
| <i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00034*) | 50-100 | good-luxuriant |
| <i>Neisseria meningitidis</i> ATCC 13090 | ≥10 ⁴ | inhibited |
| <i>Streptococcus pneumoniae</i> ATCC 6303 | ≥10 ⁴ | inhibited |
| <i>Streptococcus pyogenes</i> ATCC 19615 | ≥10 ⁴ | inhibited |
| <i>Enterococcus faecalis</i> ATCC 29212 (00087*) | 50-100 | good-luxuriant |

Key : *Corresponding WDCMnumbers.

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. 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 sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference

1. Rosenow, 1919, J. Dental Research, 1:205.
2. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
4. 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.

Revision : 03/2024

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 or therapeutic use but for laboratory, diagnostic, 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.