BHI w/ 0.1% Agar, HiVeg™

MV1036

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
Sodium chloride	5.000
Disodium hydrogen phosphate	2.500
Dextrose (Glucose)	2.000
Agar	1.000
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 38.0 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Dispense into bottles or tubes as desired. 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

BHI w/ 0.1% Agar, HiVeg™ 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). Brain Heart Infusion Broth is also the preferred medium for anaerobic bacteria, yeasts and moulds (2,3,4). This medium is nutritious and well buffered to support the growth of wide variety of organisms (3,5,6). BHI w/ 0.1% Agar, HiVeg™ is prepared by completely replacing animal based peptone with vegetable peptones to avoid BSE/TSE risks associate with animal peptones. With the addition of 10% defibrinated sheep blood, it is useful for isolation and cultivation of Histoplasma capsulatum (7) and other fungi. Agar in 0.1% concentration improves growth of microaerophillic and anaerobic microorganisms (3). For selective isolation of fungi, addition of gentamicin and/or chloramphenicol is recommended (8).

HiVeg™ special infusion, HiVeg™ infusion and HiVeg™ peptone No. 3 serve as sources of carbon, nitrogen, essential growth factors, amino acids and vitamins. Dextrose serves as a source of energy. Disodium hydrogen phosphate helps in maintaining the buffering action of the medium whereas sodium chloride maintains the osmotic equilibrium of the medium. Agar in 0.1% concentration helps create appropriate conditions for growth of anaerobic bacteria.

Type of specimen

Food samples

Specimen Collection and Handling

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (4). 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.

Limitation

1.Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2.This medium with added 10% sheep blood, gentamicin and chloramphenicol is inhibitory to certain fung
3. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

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 to medium amber coloured, clear solution without any precipitate

Reaction

Reaction of 3.8% 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
Enterococcus faecalis ATCC 29212 (00087*)	50-100	good-luxuriant
Neisseria meningitidis ATCC 13090	50-100	good-luxuriant
Streptococcus pneumoniae ATCC 6303	50-100	good-luxuriant
Streptococcus pyogenes ATCC 19615	50-100	good-luxuriant
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	50-100	good-luxuriant

Key : *Corresponding WDCM numbers.

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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (9,10).

Reference

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