Sensitivity Test HiVeg™ Medium

MV296

Intended Use:

Recommended for sensitivity tests with sulphonamides and other antimicrobial agents.

Composition**

Ingredients	g / L
HiVeg™ peptone No. 3	10.000
HiVeg™ infusion	10.000
Dextrose (Glucose)	10.000
Sodium chloride	3.000
Disodium hydrogen phosphate	2.000
Sodium acetate	1.000
Adenine sulphate	0.010
Guanine	0.010
Uracil	0.010
Xanthine	0.010
Agar	15.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 51.04 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at Δ 118-121°C for 15 minutes. Cool to 45-50°C and add sterile serum or blood aseptically if desired. Mix well and pour into sterile Petri plates. Δ corresponds to 12-15 lbs pressure respectively.

Principle And Interpretation

Sensitivity testing has been used for several decades as a guide for antimicrobial therapy of serious infections. Such testing is most frequently performed when bactericidal antimicrobial agent therapy is considered necessary. It has also been used to ensure that the infecting organism is killed by (not tolerant to) the bactericidal compounds. Sensitivity Test Medium is designed for use in sensitivity tests with sulphonamides and other antimicrobial agents (1).

Sensitivity Test HiVeg™ Medium is prepared by completely replacing animal based peptone with vegetable peptones to avoid BSE/TSE risks associate with animal peptones.

Incorporation of sodium acetate and HiVeg™ infusion in this medium renders the medium to give better defined zones of inhibition in sensitivity plate tests. HiVeg™ peptone No. 3 supplies the nitrogenous nutrients to the organisms. Addition of nucleoside bases supports the growth of common gram-positive and gram-negative organisms. Dextrose serves as the carbohydrate and energy source for many microorganisms. The medium is well buffered and isotonic due to the inclusion of disodium phosphate and sodium chloride respectively.

Type of specimen

Isolated Microorganism from clinical sample

Specimen Collection and Handling:

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. Well isolated colonies must be used.

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

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Yellow coloured clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 5.1% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH

7.10-7.50

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Escherichia coli ATCC 25922 (00013*)	50-100	good-luxuriant	>=70%
Pseudomonas aeruginosa ATCC 27853 (00025*)	50-100	good-luxuriant	>=70%
$Bacillus spizizenii ATCC 6633 (00003*)	50-100	good-luxuriant	>=70%
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	50-100	good-luxuriant	>=70%
Enterococcus faecalis ATCC 29212 (00087*)	50-100	good-luxuriant	>=70%

Key : *Corresponding WDCM numbers $ Formerly known as *Bacillus subtilis* subsp *spizizenii*

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°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 (2,3).

Reference

1. Atlas R.M., 1993, Handbook of Microbiological Media, CRC Press, Inc., Boca Raton.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. 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.

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