

Schaedler HiVeg™ Broth

MV292

Intended Use:

Recommended for the enumeration of various aerobic and anaerobic bacterial species.

Composition**

Ingredients	g / L
HiVeg™ hydrolysate	5.670
HiVeg™ peptone No. 3	5.000
Soya peptone	1.000
Yeast extract	5.000
Dextrose (Glucose)	5.830
Sodium chloride	1.670
Dipotassium hydrogen phosphate	0.830
Tris (hydroxymethyl) aminomethane	3.000
L-Cystine	0.400
Hemin	0.010
Final pH (at 25°C)	7.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 28.41 grams in 1000 ml purified/distilled water. If desired 0.02-0.2% Agar can be added. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add 5% sterile defibrinated blood if desired. Mix well and dispense into tubes or flasks as desired. Avoid overheating and photooxidation of the medium as it will retard the growth of bacteria.

Principle And Interpretation

Schaedler Broth was originally formulated by Schaedler et al (1) and modified by Mata et al (2) with composition changes (3). It serves as an excellent basal medium to which blood or other enrichments can be added to enhance the recovery of fastidious anaerobic organisms. Stalons et al (4) found this medium to be most effective medium for the growth of obligately anaerobic bacteria in an atmosphere of 5% carbon dioxide, 10% hydrogen and 85% Nitrogen. It can also be used to determine antibiotics MIC levels of anaerobic organisms (4). Fass et al used (5) tube method for antibiotic MIC determination. Schaedler HiVeg™ Broth is prepared by using vegetable peptones in place of animal based peptones which make the media free of BSE/TSE risks. Schaedler broth is highly nutritious medium due to HiVeg™ hydrolysate, HiVeg™ peptone No. 3, soya peptone and yeast extract. Sodium Polyanethole Sulphonate (SPS) which is an anticoagulant in culture bottles promotes optimal recovery of organisms from blood (6). It acts to inhibit phagocytosis and to neutralize the antibacterial activity of fresh blood components (7,8).

Type of specimen

Please add specimens.

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 clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Due to nutritional variations, certain strains may show slow growth

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 to slightly opalescent solution in tubes

Reaction

Reaction of 2.84% w/v aqueous solution at 25°C. pH : 7.6±0.2

pH

7.40-7.80

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours under anaerobic condition.

Organism	Inoculum (CFU)	Growth
<i>Bacteroides fragilis</i> ATCC 25285	50-100	luxuriant
<i>Clostridium butyricum</i> ATCC 13732	50-100	luxuriant
<i>Clostridium perfringens</i> ATCC 12924	50-100	luxuriant
<i>Clostridium sporogenes</i> ATCC 11437	50-100	luxuriant
<i>Escherichia coli</i> ATCC 25922 (00013*)	>=10 ⁴	inhibited
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	luxuriant

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°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 (9,10).

References

- Schaedler R.W., Dubos R. and Castello R., 1965, J. Exp. Med., 122:59.
- Mata L.J., Carrillo C. and Villatoro E., 1969, Appl. Microbiol, 17:596.
- MacFaddin J., 1985, Media for Isolation-Cultivation-Identification- Maintenance of Medical Bacteria, Vol. I. Williams and Wilkins, Baltimore.
- Stalons D.R., Thornsberry C. and Dowel V.R., 1974, Appl. Microbiol, 27:1098.
- Fass R.J., Prior R.B. and Rotilie C.A., 1975, Antimicrob. Agents Chemother., 8:444.
- Rosner, 1968, Am. J. Clin. Pathol. 49:216.
- Garrod, 1966, J. Pathol. Bacteriol., 91:621.
- Lowrence and Traub, 1969, Appl. Microbiol, 17:839.
- Isenberg (Ed.), 1992, Clinical Microbiology Procedures Handbook, American Society for Microbiology, Washington, D.C.
- 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 : 02/2024

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.