Pike Streptococcal HiVeg™ Broth Base

MV519

Intended Use:

Recommended for selective enrichment and cultivation of Streptococci.

Composition**

Ingredients	Gms / Litre
HiVeg™ hydrolysate	10.000
HiVeg™ hydrolysate No. 1	10.000
Yeast extract	10.000
Dextrose (Glucose)	0.200
Sodium azide	0.065
Crystal violet	0.002
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 30.26 grams in 1000 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Dispense in 100 ml amounts in flasks. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add 5%v/v sterile defibrinated rabbit blood. Mix well and dispense aseptically in 2 ml amounts in sterile tubes.

Principle And Interpretation

Streptococcus is a genus of spherical, gram-positive bacteria having both pathogenic and commensal role. Streptococci are subdivided into groups by antibodies that recognize surface antigens. These groups may include one or more species. The most important groupable streptococci are A, B and D. Individual species of *Streptococcus* are classified primarily based on their hemolytic properties (breakdown of red blood cells in a laboratory). Pike Streptococcal Broth is prepared as per the formula described by Pike (1) for selective enrichment and cultivation of haemolytic streptococci from throat swabs (2). This medium is also used to preserve *Streptococcus pyogenes*, Pneumococci and *Haemophillus influenzae* from nose and throat swabs (3). Pike Streptococcal HiVeg™ Broth Base is prepared by completely replacing animal based peptone with vegetable peptones to avoid BSE/TSE risks associate with animal peptones. HiVeg™ hydrolysate, HiVeg™ hydrolysate No. 1 and yeast extract provide nitrogenous nutrients, carbon, sulphur, vitamin B complex, trace elements for the growth of haemolytic Streptococci. Dextrose acts as the energy source. Crystal violet inhibits gram-positive bacteria and sodium azide inhibits gram-negative rods and non-haemolytic Streptococci (4).

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 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

Yellow coloured clear solution without any precipitate

Reaction

Reaction of 3.0% 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
Escherichia coli ATCC 25922 (00013*)	>=10^4	inhibited
# *Klebsiella aerogenes* ATCC 13048 (00175*)	>=10^4	inhibited
Enterococcus faecalis ATCC 29212 (00087*)	50-100	good-luxuriant
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	>=10^4	inhibited

Key : *Corresponding WDCM numbers.

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 (5,6).

Reference

1. Pike R. M., 1944, Proc. Soc. Exptl. Biol. and Med., 57:186.
2. Pike R. M., 1945, Am. J. Hygiene, 41:211.
3. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone.
4. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition
6. 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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