Listeria Enrichment HiVeg™ Broth (Twin pack) MV569

Intended Use:

Listeria Enrichment HiVeg Broth is used for selective enrichment of *Listeria monocytogenes.*

Composition**

Ingredients	g/ L
Part A	-
HiVeg™ hydrolysate	10.000
HiVeg™ peptone	10.000
Dextrose (Glucose)	1.000
Sodium chloride	5.000
Thiaminium dichloride	0.005
Acriflavine hydrochloride (Trypaflavin)	0.010
Part B	-
Potassium thiocyanate	37.500
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 26.0 grams of Part A and 37.5 grams of Part B in 1000 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Dispense in tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Listeria Enrichment Broth was proposed by Feindt (1) for the cultivation and isolation of *Listeria* species from clinical and non-clinical specimens. Obiger and Schonberg (2) reported the superiority of this media to yield Listeria from mix-infected specimens. Listeria Enrichment HiVeg™ Broth (Twin pack) is prepared by completely replacing animal based peptone with vegetable peptones to avoid BSE/TSE risks associate with animal peptones. HiVeg™ hydrolysate, HiVeg™ peptone provides essential nutrients. Thiaminium dichloride is the vitamin B source added to improve the growth of *Listeria*. Thiocyanate inhibits gram-negative bacteria (3, 4). Listeria Enrichment Broth can be further improved by adding Colimycin alongwith Nalidixic acid (5). The mix infected specimen is added directly to Listeria Enrichment HiVeg™ Broth (Twin pack).

Type of specimen

Food samples.

Specimen Collection and Handling:

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (6). 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. Further biochemical and serological tests must be carried out for further identification.

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 White to cream homogeneous free flowing powder

Colour and Clarity of prepared medium

Yellow coloured clear to slightly opalescent gel forms in Petri plates.

Reaction

Reaction of medium (2.6% w/v Part A + 3.75% w/v Part B) at 25°C. pH : 7.4±0.2

pH

7.20-7.60

Cultural Response

Cultural characteristics observed in presence of 10% Carbon dioxide (CO_2) after an incubation at 35-37°C for 48 hours.

Organism	Inoculum (CFU)	Growth
Enterococcus faecalis ATCC 29212 (00087*)	50-100	none-poor
Escherichia coli ATCC 25922 (00013*)	>=10^4	inhibited
Listeria innocua ATCC 33090 (00017*)	50-100	luxuriant
Listeria ivanovii subsp. *ivanovii* ATCC 19119 (00018*)	50-100	luxuriant
Listeria monocytogenes ATCC 19112	50-100	luxuriant
Listeria monocytogenes ATCC 19118	50-100	luxuriant

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store dehydrated 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 (7,8).

Reference

1.Feindt E., 1972, Inuug. Diss.,Würzburg.
2.Obiger G. and Schonberg A., 1973, Fleischwirtschaft, 10:1450.
3.Beerens H. and Tahon-Castel M.M., 1966, Ann. Inst. Pasteur,111:90.
4.Lebnert C., 1964, Arch. Exp. Vet. Med., 18:891 and 1247.
5.Grey M.L. et al, 1948, J. Bact., 55:471.
6.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.
7.Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition
8.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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