HiCrome Enterococci HiVeg Broth

MV1376

HiCrome Enterococci HiVeg Broth is recommended for the identification and differentiation of Enterococci from water samples.

Composition**

Ingredients	Gms / Litre
HiVeg special peptone	10.000
Sodium chloride	5.000
Sodium azide	0.300
Chromogenic mixture	0.040
Polysorbate 80	2.000
Disodium hydrogen phosphate	1.250
Final pH (at 25°C)	7.5±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 37.18 grams (double strength) or 18.59 grams (single strength) in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and dispense into tubes.

Warning : Sodium azide has a tendency to form explosive metal azides with plumbing materials. It is advisable to use enough water to flush off the disposables .

Principle And Interpretation

HiCrome Enterococci HiVeg Broth is prepared by completely replacing animal based peptones with vegetable peptones. HiCrome Enterococci HiVeg Broth is a slight modification of HiCrome Enterococci Broth which is formulated on the basis of the work carried out by Althous et al (1), Amoras (2), Litsky et al (3), and Manafi and Sommer (4) and Snyder and Lichstein (5). These media is recommended for the rapid detection of Enterococci from water samples. The presence of *Enterococcus* group, which is a subgroup of the faecal Streptococci, serves as a valuable bacterial indicator for determining the extent of faecal contamination (1, 6) and it is more specific than the detection of coliforms, which may originate from non-faecal sources. The enzyme beta-glucosidase produced by Enterococci cleaves the chromogenic substrate, resulting in a bluish green colour.

The medium contains HiVeg special peptone, which provides nitrogenous compounds and other essential nutrients. Sodium chloride maintains the osmotic balance of the medium. Sodium azide inhibits the accompanying microflora, especially gram-negative organisms. Polysorbate 80 acts as a source of fatty acids.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Light yellow coloured clear solution

Reaction
Reaction of 1.86% w/v aqueous solution at 25°C. pH : 7.5±0.2

pH
7.30-7.70

Cultural Response
MV1376: Cultural characteristics observed after an incubation at 35 - 37°C for 24 - 48 hours.

Organism	Growth	Colour of Medium

Enterococcus faecalis ATCC 29212	luxuriant	blue
Escherichia coli ATCC 25922	none-poor	light yellow
Pseudomonas aeruginosa ATCC 27853	none-poor	light yellow
Staphylococcus aureus ATCC 25923	none-poor	light yellow

Storage and Shelf Life

Store dehydrated powder and prepared medium at 2-8°C in tightly closed container. Use before expiry period on the label.

Reference

1.Althous, H., Dott, W., Havemeister, G, Muller, H.E, a. Sacre,C., 1982, Zbl. Bakt. Hyg. I. Abt. Orig. A. 252:154-165.
2.Amoras I, 1995, Poster presentation congress of Spanish Society of Microbiology, Madrid.
3.Litsky, W., Mallmann, W.L., a Fifield, C.W. 1953, Amer. J. Pbl. Hlth. 43:873-879.
4.Manafi M., and Sommer R, 1993, Wat. Sci. Tech. 27:271-274.
5.Snyder M.L., and Lichstein, H.C. 1940, J. Infect. Dis. 67. 113-115
6.Standard Methods for the Examination of Water and Wastewater, 20th Edition, Edited by L.S. Clesceri, A.E. Greenberg and A.D. Eaton, Published by APHA, AWWA and WEF (1998).

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