

Pre - Enrichment HiVeg™ Broth Base

MV1178

Pre-Enrichment HiVeg Broth Base is used for isolation and enrichment of *Yersinia enterocolitica* from foods.

Composition ** :

Ingredients	Grams/Litre
HiVeg special peptone	10.0
Yeast extract	20.0
Disodium phosphate	7.1
Sodium chloride	1.0
Potassium chloride	1.0

Final pH (at 25°C) 8.3 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 39.1 grams in 980 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 45°C and aseptically add filter sterilized magnesium sulphate (0.1%) and calcium chloride (0.1%) solution. Mix well before dispensing into sterile tubes.

Principle and Interpretation :

Pre-Enrichment HiVeg Broth is prepared by using HiVeg special peptone making the medium free of BSE/TSE risks. Pre - Enrichment HiVeg Broth is the modification of Pre - Enrichment Broth which is formulated as recommended by APHA (1) for isolation and enrichment of *Yersinia enterocolitica*, a foodborne pathogen responsible for gastroenteritis (2).

Yeast extract and HiVeg special peptone supply essential nutrients like vitamin B complex, nitrogen compounds and trace ingredients. Sodium chloride and disodium phosphate protects the medium against any osmotic and pH imbalance respectively. Magnesium sulphate, calcium chloride and potassium chloride provide the ions necessary for the growth of the organisms.

Prepare 1:10 homogenate of food sample by weighing 25 gm of food and adding it to Pre - Enrichment HiVeg Broth. Prepare a homogenate by blending or in a stomacher and incubate at 10°C for 3 days. Inoculate this pre-enriched culture in PSB HiVeg Broth Base (MV941) and incubate at 25°C and streak onto a plating agar as MacConkey HiVeg Agar (MV081) or SS HiVeg Agar (MV108) after 3 and 5 days.

Product Profile :

Vegetable based (Code MV) ©	Animal based (Code M)
MV1178 HiVeg special peptone	M1178 Peptone special

Recommended for : Isolation and enrichment of *Yersinia enterocolitica* from foods

Reconstitution : 39.1 g/l

Quantity on preparation (500g) : 12.78 L

pH (25°C) : 8.3 ± 0.2

Supplement : Filter sterilized magnesium sulphate (0.1%) and calcium chloride (0.1%) solution

Sterilization : 121°C / 15 minutes.

Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

Quality Control :**Appearance of powder**

Light yellow coloured may have slightly greenish tinge, homogeneous, free flowing powder.

Colour and Clarity

Yellow coloured, clear solution with slight precipitate.

Reaction

Reaction of 3.91% w/v aqueous solution is pH 8.3 ± 0.2 at 25°C

Cultural Response

Cultural characteristics observed after an incubation at 30 - 32°C for 18 - 24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth
<i>Yersinia enterocolitica</i> (27729)	10 ² -10 ³	luxuriant

References :

- Vanderzant C and Splittstosser D (Eds.), 1992, Compendium of Methods For The Microbiological Examination of Foods, 3rd ed., APHA, Washington, D.C.
- Schiemann, 1979, Can. J. Microbiol., 25: 1298.