

Peptone Sorbitol HiVeg™ Broth**MV1231**

Peptone Sorbitol HiVeg Broth is used for identification of *Yersinia enterocolitica* from dairy products.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	5.0
Sorbitol	10.0
Disodium phosphate	8.23
Monosodium phosphate	1.2
Synthetic detergent No. I	1.5
Sodium chloride	5.0

Final pH (at 25°C) 7.6 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 30.93 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense 100 ml into Wheaton bottles. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle and Interpretation :

Peptone Sorbitol HiVeg Broth is prepared by using HiVeg peptone and synthetic detergent No. I in place of Peptic digest of animal tissue and bile salts mixture. Peptone Sorbitol HiVeg Broth is the modification of Peptone Sorbitol Broth which is formulated as per APHA (1) for the identification of *Yersinia enterocolitica* from dairy products. *Yersinia enterocolitica* is a food borne pathogen which causes gastroenteritis and terminalileitis in humans.

Peptone Sorbitol HiVeg Broth contains HiVeg peptone which provides nitrogenous growth factors and trace ingredients for the growth of *Yersinia enterocolitica*. Sorbitol is polyhydric alcohol corresponding to glucose which is an important substrate in biochemical characterization tests for bacteria. *Yersinia enterocolitica* can degrade sorbitol while *Yersinia pestis* and *Yersinia pseudotuberculosis* can not utilize it (1). Phosphates maintain the buffering action of the medium while synthetic detergent No. I inhibits majority of the gram-positive organisms. The pH of the medium is slightly alkaline as *Yersinia* species are tolerant to dilute alkali (2).

Quality Control :**Appearance of powder**

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

Colour and Clarity

Light yellow coloured, clear solution without any precipitate.

Reaction

Reaction of 3.09% w/v aqueous solution is pH 7.6 ± 0.2 at 25°C.

Product Profile :

Vegetable based (Code MV) ©	Animal based (Code M)
MV1231 HiVeg peptone Synthetic detergent No. I	M1231 Peptic digest of animal tissue Bile salts mixture

Recommended for : Identification of *Yersinia enterocolitica* from dairy products.

Reconstitution : 30.93 g/l

Quantity on preparation (500g) : 16.16 L

pH (25°C) : 7.6 ± 0.2

Supplement : None

Sterilization : 121°C / 15 minutes

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

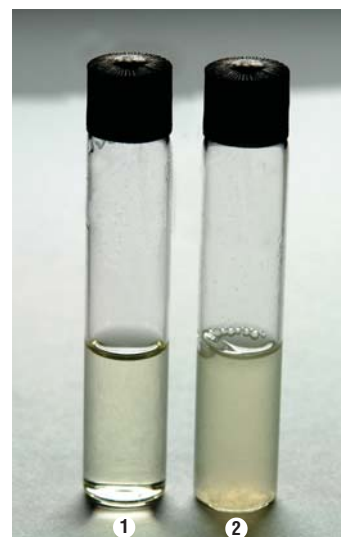
Cultural Response

Cultural characteristics observed after an incubation at 25°-30°C for 24-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Sorbitol utilization
<i>Yersinia enterocolitica</i> (27729)	10 ² -10 ³	luxuriant	+
<i>Yersinia pseudotuberculosis</i> (29833)	10 ² -10 ³	good-luxuriant	-

References :

- Standard Methods for the Examination of Dairy Products. 17th Edition, 2004 Edited by H. Michael Wehr and Joseph H.Frank.
- Aulisio C.C.G., Mehman I.J. and Sanders A.C., 1980, Appl. Environ. Microbiol., 39:135.



MV1231 Peptone Sorbitol HiVeg Broth

- Control
- Yersinia enterocolitica*