

Tetrathionate Brilliant Green HiVeg™ Broth**MV1255**

Tetrathionate Brilliant Green HiVeg Broth is used for isolation and identification of *Salmonellae*.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	11.6
Synthetic detergent No. II	5.0
Sodium chloride	6.4
Calcium carbonate	20.0
Potassium tetrathionate	20.0
Brilliant green	0.07

Final pH (at 25°C) 7.0 ± 0.2 (after sterilization)

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 63.0 grams in 1000 ml distilled water. Heat just to boiling. DO NOT REHEAT. Dispense as desired.

NOTE: Due to presence of calcium carbonate, the prepared medium forms opalescent solution with white precipitate.

Principle and Interpretation :

Tetrathionate Brilliant Green HiVeg Broth is prepared by completely replacing animal based peptones by vegetables peptones. Tetrathionate Brilliant Green HiVeg Broth is the modification of Tetrathionate Brilliant Green Bile Broth which is prepared for isolation and identification of *Salmonella* species from foods, water and other materials of sanitary importance.

HiVeg peptone provide nitrogenous nutrients to the *Salmonellae*. Brilliant green and synthetic detergent No. II inhibit both gram-positive as well as some selected gram-negative organisms. Potassium tetrathionate inhibits normal flora of faecal specimens. Sodium chloride helps in maintaining osmotic equilibrium. Calcium carbonate absorbs and neutralises the toxic metabolites.

After incubation streak onto differential medium like MacConkey Agar (MV082) for isolation and identification. Tetrathionate Brilliant Green HiVeg Broth is not suitable for growth of *Salmonella* serotype Typhi and *Salmonella* serotype Paratyphi (1).

Quality Control :**Appearance of powder**

Greenish yellow coloured, homogeneous, free flowing powder.

Product Profile :

Vegetable based (Code MV) ©	Animal based (Code M)
MV1255 HiVeg peptone Synthetic detergent No. II	M1255 Peptic digest of animal tissue Ox bile

Recommended for : Isolation and identification of *Salmonellae*.

Reconstitution : 63.0 g/l

Quantity on preparation (500g) : 7.93 L

pH (25°C) : 7.0 ± 0.2 (after sterilization)

Supplement : None

Sterilization : Boiling (DO NOT AUTOCLAVE)

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

Colour and Clarity

Bluish green coloured, opalescent solution with white precipitate. On standing the precipitate settles down.

Reaction

Reaction of 6.3% w/v aqueous solution after sterilization is pH 7.0 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth*	Recovery	Colour of colony*
<i>Escherichia coli</i> (25922)	10 ² -10 ³	fair-good	> 20%	pink-red
<i>Salmonella</i> serotype Enteritidis (13076)	10 ² -10 ³	luxuriant	> 50%	colourless
<i>Salmonella</i> serotype Typhimurium (14028)	10 ² -10 ³	luxuriant	> 50%	colourless
<i>Staphylococcus aureus</i> (25923)	10 ² -10 ³	inhibited	0%	-

Key : * = on MacConkey HiVeg Agar (MV082)

References :

- MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.