Brilliant Green HiVeg™ Agar MV059

Brilliant Green HiVeg Agar is recommended for differentiation and enumeration of the coliform bacteria in water and wastewater.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	8.25
Lactose	1.9
Sodium sulphite	0.205
Ferric chloride	0.0295
Monopotassium phosphate	0.0153
Erioglaucine	0.0649
Basic fuchsin	0.0776
Synthetic detergent No. II	0.00295
Brilliant green	0.0000295
Agar	10.15

Final pH (at 25°C) 6.9 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 20.7 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. For plating 10 ml quantities of water samples prepare the medium in double strength.
Caution: Basic Fuchsin is a potential carcinogen and care should be taken to avoid inhalation of the powdered dye and contamination of the skin.

Principle and Interpretation :

Brilliant Green HiVeg Agar is prepared by replacing peptic digest of animal tissue and oxgall by HiVeg peptone and synthetic detergent No. II respectively which makes the medium free of BSE/TSE risks. Brilliant Green HiVeg Agar is the modification of Brilliant Green Bile Agar originally formulated as solid medium by Nobel and Tonney (1) for the direct plating of materials of sanitary importance for enumeration of coliform bacteria. This medium is useful in selectively isolating *Salmonella* species from other coliform bacteria.
It contains brilliant green and synthetic detergent No. II combination which is highly selective for coliforms, inhibiting most of gram-positive and some gram-negative bacteria. Erioglaucine and basic fuchsin together indicate pH of the medium. When pH is neutral, colour of the medium is blue while acid production from lactose turns the medium pink and colonies appear pink to deep red depending on the pH change. Monopotassium phosphate is a buffering agent. Colonies of coliform bacteria are deep red surrounded by a pink halo against blue background of the medium, while *Salmonella* species, which do not ferment lactose, produce colourless to light pink colonies. It is recommended that the medium be prepared just prior to use and when necessary to store the medium, it should be kept in dark. Medium is sensitive to light, particularly direct sunlight, which will exhibit a decrease in the productivity of the medium and also colour may change from deep blue to purple or red.

Quality Control :

Appearance of powder
Light purple coloured, homogeneous, free flowing powder.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV059 HiVeg peptone Synthetic detergent No. II	**M059** Peptic digest of animal tissue Oxgall

Recommended for	:	Isolation, differentiation and enumeration of coliform bacteria in water and wastewater.
Reconstitution	:	20.7 g/l
Quantity on preparation (500g)	:	24.15 L
(100g)	:	4.83 L
pH (25°C)	:	6.9 ± 0.2
Supplement	:	None
Sterilization	:	121°C / 15 minutes.

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

Gelling
Firm, comparable with 1.0% Agar gel.

Colour and Clarity
Bluish purple coloured, slightly opalescent gel forms in petri plates.

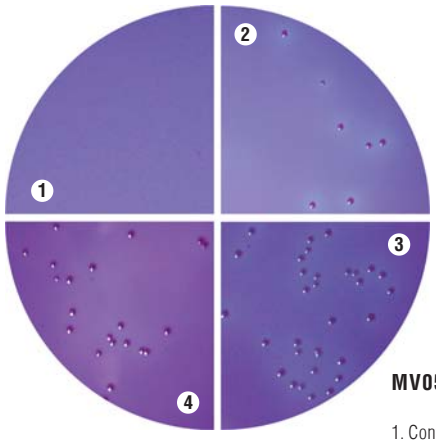
Reaction
Reaction of 2.07% w/v aqueous solution is pH 6.9 ± 0.2 at 25°C.

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colony	Recovery
Enterobacter aerogenes (13048)	10^2-10^3	luxuriant	pink	>50%
Escherichia coli (25922)	10^2-10^3	luxuriant	deep red	>50%
Salmonella serotype Enteritidis (13076)	10^2-10^3	luxuriant	Colourless-light pink	>50%
Staphylococcus aureus (25923)	10^2-10^3	inhibited	-	0%

References :

1. Noble and Tonney, 1935, J. Am. WaterWorks Assoc., 27:108.



MV059 Brilliant Green HiVeg Agar
1. Control
2. *Escherichia coli*
3. *Salmonella* serotype Enteritidis
4. *Enterobacter aerogenes*

◉ Prepared from GMO free Vegetable proteins replacing Animal based peptones. Freedom from BSE/TSE worries.