# Slanetz and Bartley HiVeg™ Medium MV612

Slanetz and Bartley HiVeg Medium is recommended for detection and enumeration of faecal *Entercocci* by membrane filtration technique.

## Composition ** :

| Ingredients | Grams/Litre |
|---|---|
| HiVeg hydrolysate No. 1 | 20.0 |
| Yeast extract | 5.0 |
| Dextrose | 2.0 |
| Disodium phosphate | 4.0 |
| Sodium azide | 0.4 |
| 2,3,5-Triphenyl tetrazolium chloride | 0.1 |
| Agar | 15.0 |

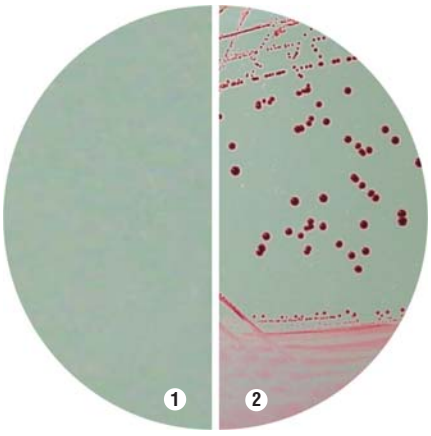
Final pH (at 25°C ) 7.2 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

## Directions :

Suspend 46.5 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE OR OVERHEAT. Excessive heating is detrimental.
**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 :

This medium is prepared by completely replacing animal based peptones with vegetable peptones making the medium free of BSE/TSE risks. Slanetz and Bartley HiVeg Medium is the modification of Slanetz and Bartley Medium originally devised by Slanetz and Bartley (1) for the detection and enumeration of *Enterococci* by membrane filtration technique. Slanetz and Bartley HiVeg Medium like the conventional medium, can be also used as a direct plating medium (2, 3).
The medium is highly selective for *Enterococci*. Sodium azide has inhibitory effect on gram-negative organisms. Triphenyl Tetrazolium Chloride is reduced to insoluble formazan inside the bacterial cell forming dark red-coloured colonies. When the medium is incubated at higher temperature (44-45°C), all red or maroon colonies can be considered as presumptive *Enterococci* (4,5).




**MV612 Slanetz and Bartley HiVeg Medium**
1. Control
2. *Enterococcus faecalis*

| Product Profile : | |
|---|---|
| **Vegetable based** (Code MV)◉ | **Animal based** (Code M) |
| **MV612** HiVeg hydrolysate No. 1 | **M612** Tryptose |

| | | |
|---|---|---|
| **Recommended for** | : | Detection and enumeration of faecal *Entercocci* by membrane filtration technique. |
| **Reconstitution** | : | 46.5 g/l |
| **Quantity on preparation (500g)** | : | 10.75 L |
| **pH (25°C)** | : | 7.2 ± 0.2 |
| **Supplement** | : | None |
| **Sterilization** | : | Boiling (DO NOT AUTOCLAVE) |

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

Water is filtered through a membrane filter which is then placed on the surface of the Slanetz and Bartley HiVeg Medium plates and incubated at 35°C for 4 hours and then at 44-45°C for 44-48 hours. Red or maroon colonies are counted as *Enterococci*. Although incubation at 35°C yields a higher count, it allows the growth of organism which do not conform to the definition of *Enterococci*. Incubation at 44-45°C has a selective effect and produces fewer false - positives. The preliminary incubation at 35°C helps for the recovery of stressed organisms. Not all the species reduce TTC, hence pale colonies also should be considered.
Food samples are homogenized and diluted with physiological saline so as to give 15-150 colonies on each petri plate. Homogenates or dilutions are spread on agar surface and incubated at 35°C for 48 hours. Pink or dark red colonies with a narrow whitish border are counted (3).

## Quality Control :

**Appearance of powder**
Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.
**Gelling**
Firm, comparable with 1.5% Agar gel.
**Colour and Clarity**
Light yellow coloured, slightly opalescent gel forms in petri plates.
**Reaction**
Reaction of 4.65% w/v aqueous solution is pH 7.2 ± 0.2 at 25°C.
**Cultural Response**
Cultural characteristics observed after an incubation at 44-45°C for 44-48 hours.

| Organisms (ATCC) | Inoculum (CFU) | Growth | Recovery | Colour of colony |
|---|---|---|---|---|
| *Enterococcus faecalis* (29212) | $10^2$-$10^3$ | luxuriant | >50% | red or maroon |
| *Escherichia coli* (25922) | $10^2$-$10^3$ | inhibited | 0% | - |

## References :

1. Slanetz L. W. and Bartley C.H., 1957, J. Bact., 74:591.
2. Burkwall M.K. and Hartman P.A., 1964, Appl. Microbiol., 12:18.
3. Nordic Committee on Food Analysis, 1968, Leaflet 68.
4. Taylor E.W. and Burman N.P., 1964, J. Appl. Bact., 27:294.
5. Mead G.C., 1966, Proc. Soc. Wat. Treat. Exam., 15:207.

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

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