

**Pfizer Selective Enterococcus HiVeg™ Agar**

**MV787**

Pfizer Selective Enterococcus HiVeg Agar is used for selective isolation and cultivation of *Enterococci*.

**Composition \*\* :**

Ingredients	Grams/Litre
HiVeg hydrolysate	21.0
HiVeg peptone	6.0
Yeast extract	5.0
Synthetic detergent	3.0
Sodium chloride	5.0
Sodium citrate	1.0
Esculin	1.0
Ferric ammonium citrate	0.5
Sodium azide	0.25
Agar	15.0

Final pH (at 25°C ) 7.1 ± 0.2

\*\* Formula adjusted, standardized to suit performance parameters.

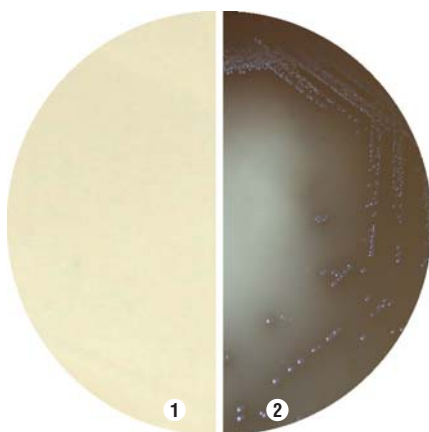
**Directions :**

Suspend 58 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**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 :**

Pfizer Selective Enterococcus HiVeg Agar is prepared by using vegetable peptones in place of animal based peptones which makes the medium free of BSE/TSE risk. Pfizer Selective Enterococcus HiVeg Agar is used for selective isolation and cultivation of *Enterococci*. The importance of esculin hydrolysis in identifying *Enterococci* was first noted by Rochaix as other *Streptococci* fail to do so (1). Isenberg used sodium azide in the medium to inhibit gram negative organisms (2).



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- 1. Control
- 2. *Enterococcus faecalis*

**Product Profile :**

Vegetable based (Code MV)®	Animal based (Code M)
<b>MV787</b> HiVeg peptone HiVeg hydrolysate Synthetic detergent	<b>M787</b> Peptic digest of animal tissue Casein enzymic hydrolysate Bile salts

**Recommended for** : Selective isolation and cultivation of *Enterococci*.

**Reconstitution** : 58.0 g/l

**Quantity on preparation (500g)** : 8.62 L

**pH (25°C)** : 7.1 ± 0.2

**Supplement** : None

**Sterilization** : 121°C / 15 minutes.

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

HiVeg hydrolysate, HiVeg peptone and yeast extract provide the nutrients like nitrogenous compounds, carbon, sulphur, vitamin B complex and trace ingredients for the growth of *Enterococci*. Esculin, a glycoside is hydrolyzed by *Enterococci* to esculin and dextrose. Esculetin reacts with ferric ammonium citrate to form a dark brown to black coloured complex (3). Synthetic detergent and sodium azide inhibit gram-positive (except *Enterococci*) and gram-negative bacteria respectively.

**Quality Control :**

**Appearance of powder**

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

**Gelling**

Firm, comparable with 1.5% Agar gel.

**Colour and Clarity**

Light amber coloured, clear to slightly opalescent gel with a bluish tinge forms in petri plates.

**Reaction**

Reaction of 5.8% w/v aqueous solution is pH 7.1 ± 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	Esculin Hydrolysis
<i>Enterobacter aerogenes</i> (13048)	10 <sup>2</sup> -10 <sup>3</sup>	inhibited	-
<i>Enterococcus faecalis</i> (29212)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	+
<i>Escherichia coli</i> (25922)	10 <sup>2</sup> -10 <sup>3</sup>	inhibited	-
<i>Staphylococcus aureus</i> (25923)	10 <sup>2</sup> -10 <sup>3</sup>	fair-good	-

Key : + = blackening around the colony.

**References :**

- 1. Rochaix, 1924, C.R. Soc. Biol., 90 : 771.
- 2. Isenberg, Goldberg and Sampson, 1970, Appl. Microbiol., 20 : 433.
- 3. MacFaddin J.F., 2000 (ed), Biochemical Tests for Identification of Medical Bacteria, 3<sup>rd</sup> edition, Lippincott Williams and Wilkins, New York