

Phenylethyl Alcohol HiVeg™ Agar

MV269

Phenylethyl Alcohol HiVeg Agar is a selective medium used for the isolation of gram positive organisms like *Staphylococci* and *Streptococci*.

Composition ** :

Ingredients	Grams/Litre
HiVeg hydrolysate	15.0
Papaic digest of soyabean meal	5.0
Sodium chloride	5.0
Phenylethyl alcohol	2.5
Agar	15.0

Final pH (at 25°C) 7.3 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 42.5 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 the preparation of blood agar add 5% v/v sterile defibrinated blood to the sterile molten medium cooled to 45°C. Mix well before pouring into sterile plates.

Principle and Interpretation :

Phenylethyl Alcohol HiVeg Agar is prepared by replacing animal based peptones with vegetable peptone which are free from BSE/TSE risk. This medium is the modification of Phenylethyl Alcohol Agar, which is a selective medium, used for the isolation of gram- positive organisms especially *Staphylococci* and *Streptococci*. Addition of phenylethanol to a nutritive medium permits the growth of gram-positive organisms but inhibits the gram-negative organisms found in the same specimen (1). Phenylethyl alcohol exerts inhibitory bacteriostatic action on gram-negative bacteria by inhibiting their DNA synthesis (2). It particularly inhibits *Proteus* species in specimens containing a mixed bacterial population.

HiVeg hydrolysate and papaic digest of soyabean meal provide nitrogen, carbon, sulfur and trace elements to the growing organisms. Addition of sheep blood provides many growth factors. But this medium should not be used for determination of haemolytical reaction since atypical reaction may be observed. Sodium chloride maintains osmotic equilibrium.

Quality Control :**Appearance of powder**

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

Product Profile :

Vegetable based (Code MV)☉	Animal based (Code M)
MV269 HiVeg hydrolysate	M269 Casein enzymic hydrolysate

Recommended for : Isolation of gram- positive organisms like *Staphylococci* and *Streptococci*.

Reconstitution : 42.5 g/l

Quantity on preparation (100g) : 2.35 L

pH (25°C) : 7.3 ± 0.2

Supplement : Sterile defibrinated blood, if desired

Sterilization : 121°C / 15 minutes.

Storage : Dry Medium and Prepared Medium 2 - 8°C.

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity

Light amber coloured slightly opalescent gel, with addition of 5% v/v sterile defibrinated blood, cherry red coloured opaque gel forms in petri plates.

Reaction

Reaction of 4.25% w/v aqueous solution is pH 7.3 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18 - 48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of Colony
<i>Enterococcus faecalis</i> (29212)	10 ² -10 ³	good-luxuriant	blue-grey
<i>Escherichia coli</i> (25922)	10 ² -10 ³	none - poor	-
<i>Proteus mirabilis</i> (25933)	10 ² -10 ³	none - poor	-
<i>Salmonella</i> serotype Typhi (6539)	10 ² -10 ³	none - fair	-
<i>Staphylococcus aureus</i> (25923)	10 ² -10 ³	good-luxuriant	white to yellow

References :

- Lilley and Brewer, 1953, J. Am. Pharm. Assoc., 42:6.
- Dowell, Hill and Altemeier, 1964, J. Bact., 88:1811.