

## Standard Methods HiVeg™ Agar w/ Tween 80 and Lecithin

MV302

Standard Methods HiVeg Agar with Tween 80 and Lecithin is used for examination of sanitary quality of surfaces.

**Composition \*\* :**

Ingredients	Grams/Litre
HiVeg hydrolysate	5.0
Yeast extract	2.5
Dextrose	1.0
Lecithin	0.7
Polysorbate 80 (Tween 80)	5.0
Agar	15.0

Final pH (at 25°C) 7.0 ± 0.2

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

**Directions :**

Suspend 29.2 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.

**Principle and Interpretation :**

This medium is prepared by using HiVeg hydrolysate in place of Casein enzymic hydrolysate which makes the medium free of BSE/TSE risks. Standard Methods HiVeg Agar with Tween 80 and Lecithin is the modification of Standard Methods Agar with Tween 80 and Lecithin which is formulated as per APHA (1) for the enumeration of microorganisms from flat and nonporous surfaces. For the intended purpose the plates of this medium should be prepared carefully to ensure the presence of meniscus of agar extending above the top of the poured plate.

HiVeg hydrolysate provides amino acids while yeast extract supplies vitamin B complex and dextrose serves as an energy source. Polysorbate 80 and lecithin act as neutralizers to inactivate the residual disinfectants from where the samples are collected (2, 3). Lecithin inactivates quaternary ammonium compounds whereas polysorbate 80 neutralizes formalin, phenolic disinfectants, hexachlorophene etc.

**Product Profile :**

Vegetable based (Code MV)©	Animal based (Code M)
<b>MV302</b> HiVeg hydrolysate	<b>M302</b> Casein enzymic hydrolysate

**Recommended for** : Examination of sanitary quality of surfaces.

**Reconstitution** : 29.2 g/l

**Quantity on preparation (500g):** 17.12 L  
**(100g)** : 3.42 L

**pH (25°C)** : 7.0 ± 0.2

**Supplement** : None

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

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

**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 2.92% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.

**Cultural Response**

Cultural characteristics observed after an incubation at 35-37°C for 24 - 48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>Escherichia coli</i> (25922)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	> 70%
<i>Staphylococcus aureus</i> (25923)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	> 70%

**References :**

- Richardson (Ed.) Standard Methods for the Examination of Dairy Products. 15<sup>th</sup> Edition, 1985, APHA, Washington, D.C.
- Erlanson and Lawrence, 1953, Science, 118:274.
- Brummer, 1976, Appl. Environ. Microbiol., 32:80.