

## PL HiVeg™ Agar

MV1173

PL HiVeg Agar is recommended for the isolation and cultivation of *Plesiomonas shigelloides* from food.

**Composition \*\* :**

Ingredients	Grams/Litre
HiVeg peptone	5.0
Yeast extract	2.0
Sodium chloride	5.0
Mannitol	7.5
L-Arabinose	5.0
Inositol	1.0
Lysine	2.0
Synthetic detergent	1.0
Phenol red	0.08
Agar	15.0

Final pH (at 25°C ) 7.4 ± 0.2

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

**Directions :**

Suspend 43.58 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 10 lbs pressure (115°C) for 15 minutes.

**Principle and Interpretation :**

PL HiVeg Agar is prepared by using HiVeg peptone and synthetic detergent which are free of BSE/TSE risks associated with animal based peptones. PL HiVeg Agar is the modification of PL Agar which is formulated as per APHA (1) for isolation and cultivation of *Plesiomonas shigelloides* from foods. *Plesiomonas shigelloides* is an opportunistic pathogen while controversy exists as its role as an enteropathogen (2, 3) and is mainly associated with the consumption of uncooked molluscs or with foreign travel (4). It does not grow on media like Thiosulphate Citrate Salts Sucrose HiVeg Agar (TCBS HiVeg Agar, MV189) but grows well on PL HiVeg Agar. HiVeg peptone and yeast extract supply the nitrogenous compounds, vitamin B complex and trace ingredients. L-lysine is the amino acid source while arabinose, inositol and mannitol are the fermentable carbohydrate sources in the medium. Synthetic detergent inhibits gram-positive bacteria. Phenol red is the pH indicator which turns yellow at acidic pH.

If the sample is fluid, streak directly. If the sample is solid, prepare dilution in 0.1% HiVeg Peptone Water, (MV028) or transfer 10 gram sample to 90 ml Tetrathionate HiVeg Broth (MV032) without iodine and incubate at 40°C for 24 hours. After incubation streak on PL HiVeg Agar.

**Product Profile :**

Vegetable based (Code MV)Ⓞ	Animal based (Code M)
<b>MV1173</b> HiVeg peptone Synthetic detergent	<b>M1173</b> Peptic digest of animal tissue Bile salts

**Recommended for** : Isolation and cultivation of *Plesiomonas shigelloides* from food.

**Reconstitution** : 43.58 g/l

**Quantity on preparation (500g)** : 11.47 L

**pH (25°C)** : 7.4 ± 0.2

**Supplement** : None

**Sterilization** : 115°C / 15 minutes

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

**Quality Control :****Appearance of powder**

Pink coloured, homogeneous, free flowing powder.

**Gelling**

Firm, comparable with 1.5% Agar gel.

**Colour and Clarity**

Red coloured, clear to slightly opalescent gel forms in petri plates.

**Reaction**

Reaction of 4.36% w/v aqueous solution is pH 7.4 ± 0.2 at 25°C

**Cultural Response**

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

Organisms (ATCC)	Inoculum (CFU)	Growth
<i>Plesiomonas shigelloides</i> (14029)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant

**References :**

1. Frances Pouch Downes and Keith Ito (Eds.), 2001, Compendium of Methods For The Microbiological Examination of Foods, 3<sup>rd</sup> ed., APHA, Washington, D.C.
2. Ingram C.W., Morrison A.J. and Levitz R.E., 1987, J. Clin. Microbiol., 25 : 1791.
3. Holmberg S.D. and Farmer J.J., 1984, Rev. Infect. Dis., 6 : 633.
4. Holmberg S.D., et al, 1986, Ann. Intern. Med., 105 : 690.