

## HiVeg™ Peptone Water

MV028

HiVeg Peptone Water is used as a growth medium and as a base for carbohydrate fermentation media and for performing indole test.

**Composition\*\* :**

Ingredients	Grams/Litre
HiVeg peptone	10.00
Sodium chloride	5.00

Final pH (at 25°C) 7.2 ± 0.2

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

**Directions :**

Suspend 15 grams in 1000 ml distilled water. Heat if necessary to dissolve completely. Dispense in tubes with or without inverted Durham's tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Principle and Interpretation :**

This medium is prepared by replacing peptic digest of animal tissue with HiVeg peptone which is free from BSE/TSE risks. HiVeg Peptone Water is the modification of Peptone Water which is recommended (1, 2, 3) for studying the ability of an organism to ferment a specific carbohydrate and indole production, which aid in differentiation of genera and species. HiVeg Peptone Water with pH adjusted to 8.4 is suitable for the cultivation and enrichment of *Vibrio* species.

HiVeg peptone provides essential nutrients. To study the fermentation ability of organisms to carbohydrates, saccharose, rhamnose, salicin are generally added in 0.5 - 1% amount separately to the basal medium before or after sterilization. Most of the end products of carbohydrate fermentation are organic acids which, can be detected by the incorporation of phenol red dye in the basal medium.



**MV028 HiVeg Peptone Water**

1. Control
2. *Escherichia coli*

**Product Profile :**

Vegetable based (Code MV)©	Animal based (Code M)
<b>MV028</b> HiVeg peptone	<b>M028</b> Peptic digest of animal tissue

**Recommended for** : As a growth medium and as a base for carbohydrate fermentation media.

**Reconstitution** : 15.0 g/l

**Quantity on preparation (500g)** : 33.33 L

**(100g)** : 6.66 L

**pH (25°C)** : 7.2 ± 0.2

**Supplement** : None

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

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

In the presence of acid phenol red shows a colour change from red to yellow. If desired, Durham's tube may be used to detect the gas production if produced.

**Quality Control :****Appearance of Powder**

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

**Colour and Clarity**

Light yellow coloured, clear solution without any precipitate.

**Reaction**

Reaction of 1.5% w/v aqueous solution is pH 7.2 ± 0.2 at 25°C.

**Cultural Response**

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours with the addition of phenol red and dextrose for study of carbohydrate fermentation.

Organisms (ATCC)	Inoculum (CFU)	Growth	Indole production	Acid production
<i>Escherichia coli</i> (25922)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant	+*	+
<i>Salmonella</i> serotype Typhimurium (14028)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant	—	+
<i>Staphylococcus aureus</i> (25923)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant	—	+

Key: +\* = positive, red ring observed on addition of Kovac's Indole reagent

+ = Acid production, yellow colouration of the medium

**References :**

1. MacFaddin J.F., 2000(ed), Biochemical Tests for Identification of Medical Bacteria, 3<sup>rd</sup> edition, Lippincott Williams and Wilkins, New York
2. Finegold and Baron, 1986, Bailey and Scotts Diagnostic Microbiology, 7<sup>th</sup> ed., The C.V. Mosby Co., St. Louis.
3. Patrick R. Murray, Baron, Pfaller, Tenover and Tenover (Eds.), 2005, In Manual of Clinical Microbiology, 7<sup>th</sup> ed., ASM, Washington, D.C.