

**Minimum Salts w/ HiVeg™ Acid Hydrolysate****MV1254**

Minimum Salt with HiVeg Acid Hydrolysate is used for the cultivation of *Escherichia coli* strains used for genetic and molecular studies.

**Composition \*\* :**

Ingredients	Grams/Litre
HiVeg acid hydrolysate	4.0
Disodium hydrogen phosphate	6.8
Monopotassium hydrogen phosphate	3.0
Sodium chloride	0.5
Ammonium chloride	1.0
Dextrose	4.0
Magnesium sulphate	0.24

Final pH (at 25°C) 6.8 ± 0.2

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

**Directions :**

Suspend 19.54 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Principle and Interpretation :**

Minimum Salt with HiVeg acid hydrolysate is prepared with animal based peptone being replaced by vegetable peptone, which makes the medium free of BSE/TSE risks. Minimum Salt with HiVeg acid hydrolysate is the modification of Minimum Salt with Casein acid hydrolysate which is prepared based on the formula originally suggested by Davis et al (1) for cultivating *Escherichia coli* strains used for genetic and molecular studies. This medium is prepared by using HiVeg acid hydrolysate in place of Casein acid hydrolysate.

HiVeg acid hydrolysate supply many amino acids to *Escherichia coli*. Ammonium chloride is added as a nitrogen source. Dextrose serves as the carbon and energy source while two phosphates buffer the medium against pH changes due to the utilization of carbohydrate. Magnesium ions are required in a variety of enzymatic reactions including DNA replication (2).

**Product Profile :**

Vegetable based (Code MV) ©		Animal based (Code M)
<b>MV1254</b>	HiVeg acid hydrolysate	<b>M1254</b> Casein acid hydrolysate
<b>Recommended for</b>	:	Cultivation of <i>Escherichia coli</i> strains used for genetic and molecular studies.
<b>Reconstitution</b>	:	19.54 g/l
<b>Quantity on preparation (500g)</b>	:	25.58 L
<b>pH (25°C)</b>	:	6.8 ± 0.2
<b>Supplement</b>	:	None
<b>Sterilization</b>	:	121°C / 15 minutes.
<b>Storage</b>	: Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.	

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

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

**Colour and Clarity**

Light amber coloured, clear to slightly opalescent solution.

**Reaction**

Reaction of 1.95% w/v aqueous solution is pH 6.8 ± 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
<i>Escherichia coli</i> (B) (23226)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant

**References :**

1. Davis L.G., Dibner M.D. and Battey J.F., 1986, Basic Methods in Molecular Biology, Elsevier, New York, N.Y.
2. Sambrook J., Fritsch E.F. and Maniatis T., 1989, Molecular Cloning : A Laboratory Manual, 2<sup>nd</sup> ed., Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y.