

**Carbohydrate Consumption HiVeg™ Broth Base****MV1264**

Carbohydrate Consumption HiVeg Broth Base is recommended for cultivation and differentiation of *Listeria* species.

**Composition \*\* :**

Ingredients	Grams/Litre
HiVeg peptone No. 3	10.0
Sodium chloride	5.0
HiVeg extract	1.0
Bromo cresol purple	0.1

Final pH (at 25°C) 6.8 ± 0.2

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

**Directions :**

Suspend 16.1 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Distribute into tubes with inverted Durhams tube. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Aseptically add 20 ml separately sterilized carbohydrate solution to give a final concentration of 0.5%. Mix well and dispense in sterile test tubes.

**Principle and Interpretation :**

This medium is prepared by using HiVeg peptone No.3 and HiVeg extract in place of Proteose peptone and Beef extract respectively, which is free of BSE/TSE risks. Carbohydrate Consumption HiVeg Broth Base is the veg modification of Carbohydrate Consumption Broth Base employed for the cultivation and differentiation of *Listeria* species(1). Differentiation is based on fermentation of glucose, xylose, rhamnose, ribose, α-Methyl-D-mannoside and mannitol. HiVeg peptone and HiVeg extract provide carbon and nitrogen compounds including essential amino acids, vitamins and trace ingredients for bacterial metabolism. On consumption of carbohydrate, medium turns acidic indicated by colour change of medium from purple to yellow. Bromo cresol purple is the pH indicator, which indicates acid production by turning yellow.

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

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

**Colour and Clarity**

Purple coloured, clear solution without any precipitate.

**Reaction**

Reaction of 1.61% w/v aqueous solution is pH 6.8 ± 0.2 at 25°C.

**Product Profile :**

Vegetable based (Code MV)©		Animal based (Code M)	
<b>MV1264</b>		<b>M1264</b>	
HiVeg peptone No. 3		Proteose peptone	
HiVeg extract		Beef extract	
<b>Recommended for</b>	:	Cultivation and differentiation of <i>Listeria</i> species.	
<b>Reconstitution</b>	:	16.1 g/l	
<b>Quantity on preparation (500g):</b>	:	31.05 L	
<b>pH (25°C)</b>	:	6.8 ± 0.2	
<b>Supplement</b>	:	Carbohydrate solution	
<b>Sterilization</b>	:	121°C / 15 minutes.	
<b>Storage</b>	:	Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.	

**Cultural Response**

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

Organisms (ATCC)	Inoculum (CFU)	Growth	# acid	w/ rhamnose (acid)	w/rhamnose (gas)
<i>Escherichia coli</i> (25922)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	-	+	+
<i>Listeria monocytogenes</i> (19111)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	-	+	-
<i>Listeria monocytogenes</i> (19112)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	-	+	-
<i>Listeria monocytogenes</i> (19117)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	-	+	-
<i>Staphylococcus aureus</i> (25923)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	-	-	-

Key: # = without carbohydrate

**References :**

- Atlas R.M., 1993, Handbook of Microbiological Media, 1993, CRC Press, Boca Raton.

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- Control
- Escherichia coli*
- Listeria monocytogenes* (19111)
- Listeria monocytogenes* (19112)
- Listeria monocytogenes* (19117)
- Staphylococcus aureus*