

# **Technical Information**

# Carbohydrate Consumption MiVeg Broth Base

## Product Code: VM2264

**Application:** Carbohydrate Consumption MiVeg Broth Base is a selective media used for cultivation and differentiation of *Listeria* species

## Composition

Ingredients	Gms / Litre
MiVeg peptone No. 3	10.0
Sodium chloride	5.0
MiVeg extract	1.0
Bromo cresol purple	0.1
Final pH ( at 25°C)	6.8±0.2
l.,	

<sup>\*\*</sup> Formula adjusted, standardized to suit performance parameters.

# Principle & Interpretation

Carbohydrate Consumption MiVeg Broth Base is prepared by using MiVeg peptone No.3 and MiVeg extract instead of Proteose peptone and Beef extract respectively, which makes the medium free from BSE/TSE risks. This medium is the Miveg 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,  $\alpha$  -Methyl-D-mannoside and mannitol. This medium contains MiVeg peptone and MiVeg 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 act as the pH indicator, which indicates acid production by turning yellow.

# Methodology

Suspend 16.1 grams of powder media in 1000 ml distilled water. Mix thoroughly. 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.

# **Quality Control**

### Physical Appearance

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

### Colour and Clarity of prepared medium

Purple coloured, clear solution without any precipitate.

#### Reaction

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

## pH range

6.6-7.0

#### Cultural Response/Characteristics

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)
Escherichia coli (25922	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	-	+	+
Listeria monocytogenes(19111)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	-	+	-

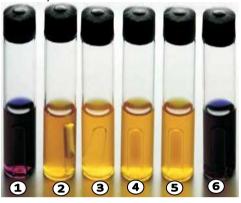




Listeria monocytogenes(19112)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	-	+		-	
Listeria monocytogenes(19117)	$10^2 - 10^3$	luxuriant	-	+		-	
Staphylococcus aureus(25923)	$10^2 - 10^3$	luxuriant	-	-	-		

# Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label. **Prepared Media:** 2-8°0 in sealable plastic bags for 2-5 days.



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- 1. Control
- 2. Escherichia coli
- 3. Listeria monocytogenes (19111)
- 4. Listeria monocytogenes (19112)
- 5. Listeria monocytogenes (19117)
- 6. Staphylococcus aureus

### **Further Reading**

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

#### Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
- Central Drug House Pvt. Ltd. reserves the right to make changes to specifications and information related to the products at any time.
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