

## TMAO HiVeg™ Medium (Trimethylamine-N-Oxide HiVeg™ Medium) MV1159

TMAO (Trimethylamine-N-Oxide) HiVeg Medium is used for cultivation and differentiation of *Campylobacter* species from foods, except *Campylobacter jejuni* and *Campylobacter coli*.

### Composition \*\* :

Ingredients	Grams/Litre
HiVeg peptone	10.0
HiVeg extract	10.0
Sodium chloride	5.0
Yeast extract	1.0
Trimethylamine-N-Oxide	1.0
Agar	2.0

Final pH (at 25°C ) 7.5 ± 0.2

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

### Directions :

Suspend 29 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense 4 ml in 13 x 100 mm screw cap tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool the tubes in an upright position.

### Principle and Interpretation :

TMAO (Trimethylamine-N-Oxide) HiVeg Medium is prepared by using HiVeg peptone and HiVeg extract which are free from BSE/TSE risks associated with animal based peptones. TMAO (Trimethylamine-N-Oxide) HiVeg Medium is the modification of TMAO (Trimethylamine-N-Oxide) Medium which is prepared as recommended by APHA (1) for cultivation and differentiation of *Campylobacter* species from foods except *Campylobacter jejuni* and *Campylobacter coli*. *Campylobacters* are mainly present in the intestinal tract of animals and therefore contaminate the foods of animal origin. *Campylobacter jejuni* and *Campylobacter coli* are sensitive to Trimethylamine-N-Oxide and hence do not grow in this medium. *Campylobacter lari* grows in this medium as it is not sensitive to this compound.

HiVeg extract, HiVeg peptone and yeast extract provide nitrogenous compounds, vitamin B complex and growth factors for *Campylobacter lari*. Sodium chloride maintains the isotonic atmosphere in the medium.

Culture is stab inoculated in upper one third of the medium and incubated in anaerobic condition for 7 days with loose caps. Growth of *Campylobacter lari* can be observed away from the stab line.

### Product Profile :

Vegetable based (Code MV) ©	Animal based (Code M)
<b>MV1159</b> HiVeg peptone HiVeg extract	<b>M1159</b> Peptic digest of animal tissue Beef extract

<b>Recommended for</b>	: Cultivation and differentiation of <i>Campylobacter</i> species from foods, except <i>Campylobacter jejuni</i> and <i>Campylobacter coli</i> .
<b>Reconstitution</b>	: 29.0 g/l
<b>Quantity on preparation (500g):</b>	: 17.24 L
<b>pH (25°C)</b>	: 7.5 ± 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

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

#### Gelling

Semisolid, comparable with 0.2% Agar gel.

#### Colour and Clarity

Yellow coloured, clear to slightly opalescent gel forms in tubes as butts.

#### Reaction

Reaction of 2.9% w/v aqueous solution is pH 7.5 ± 0.2 at 25°C.

#### Cultural Response

Cultural characteristics observed after an incubation at 42°C for 24 - 48 hours under anaerobic condition.

Organisms (ATCC)	Inoculum (CFU)	Growth
<i>Campylobacter coli</i> (33559)	10 <sup>2</sup> -10 <sup>3</sup>	inhibited
<i>Campylobacter jejuni</i> (29428)	10 <sup>2</sup> -10 <sup>3</sup>	inhibited
<i>Campylobacter lari</i> (35221)	10 <sup>2</sup> -10 <sup>3</sup>	*good-luxuriant

Key : \* = observed for growth upto to 7 days

### References :

1. Frances Pouch Downes and Keith Ito (Eds.), 2001, Compendium of Methods For The Microbiological Examination of Foods, 4<sup>th</sup> ed., APHA, Washington, D.C.