

Wesley HiVeg™ Broth Base

MV1152

Wesley HiVeg Broth is recommended as a selective enrichment medium for isolation of *Campylobacter jejuni* from poultry products.

Composition ** :

Ingredients	Grams/Litre
HiVeg hydrolysate No. 1	20.0
Yeast extract	2.5
Sodium chloride	5.0
Ferrous sulphate	0.25
Sodium metabisulphite	0.25
Sodium pyruvate	0.25
Bicine	10.0
Agar	1.0

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 39.25 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. Cool to 50°C and aseptically add rehydrated contents of 1 vial of Campylobacter Selective Supplement (FD077) and 6.25 ml of cooled alkaline hematin solution. (Dissolve 32.0 mg of bovine hemin in 10 ml of 0.15 N NaOH. Sterilize by autoclaving at 5 lbs pressure (108°C) for 30 minutes.) Mix well before dispensing.

Principle and Interpretation :

Wesley HiVeg Broth is prepared by using HiVeg hydrolysate No.1 in place of Tryptose which makes the medium free from BSE/TSE risks. Wesley HiVeg Broth is the modification of Wesley Broth which is formulated as described by Wesley (1) for selective enrichment of *Campylobacter jejuni* from poultry products. *Campylobacter jejuni* is recognized as a major cause of acute bacterial gastroenteritis in humans due to consumption of animal based foods. This organism does not grow below 30°C and is sensitive to normal atmospheric concentration of oxygen. *Campylobacter jejuni* survives best in foods held at refrigeration temperature but is highly susceptible to freezing conditions (2, 3) and also sensitive to sodium chloride.

The medium contains HiVeg hydrolysate No.1 and yeast extract which provide nitrogenous nutrients, vitamin B complex and other growth nutrients to the organisms. Sodium metabisulphite and ferrous sulphate helps in survival and easy recovery of the organism. Sodium

Product Profile :

Vegetable based (Code MV)©	Animal based (Code M)
MV1152 HiVeg hydrolysate No. 1	M1152 Tryptose
Recommended for	: Selective enrichment medium for isolation of <i>Campylobacter jejuni</i> from poultry products.
Reconstitution	: 39.25 g/l
Quantity on preparation (500g)	: 12.73 L
pH (25°C)	: -
Supplement	: Campylobacter Selective Supplement (FD077), Alkaline hematin solution
Sterilization	: 121°C / 15 minutes.
Storage	: Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

pyruvate increases the oxygen tolerance of *Campylobacter jejuni* (4). Agar in small quantity helps to create microaerophilic atmosphere. Bicine gives good buffering capacity to the medium.

Quality Control :**Appearance of powder**

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

Colour and Clarity

Amber coloured, clear to slightly opalescent solution.

Cultural Response

Cultural characteristics observed after an incubation at 40°C for 24 hours.

Organisms (ATCC)	Growth
<i>Campylobacter jejuni</i> (29428)	good-luxuriant

References :

1. Wesley R.D., Swaminathan B. and Stadelman W.J., 1983, Appl. Environ. Microbiol., 46:1097.
2. Christopher F.M., Smith G.C. and Vanderzant C., 1982, J. Food Prot., 45:260.
3. Gill C.O. and Harris L.M., 1984, J. Food Prot., 47:96.
4. George H.A., Hoffman P.S., Smibert R.M. and Krieg N.R., 1978, J. Clin. Microbiol., 8:36.