

CPC HiVeg™ Agar Base

MV1241

CPC HiVeg Agar Base is used for the cultivation and identification of *Vibrio* species from foods.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	10.0
HiVeg extract	5.0
Cellobiose	15.00
Sodium chloride	20.0
Bromo thymol blue	0.04
Cresol red	0.04
Agar	15.0

Final pH (at 25°C) 7.6 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 32.54 grams in 500 ml of distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45°C and aseptically add reconstituted contents of 1 vial of CPC Supplement (FD110). Mix well and pour into sterile petri plates.

Principle and Interpretation :

This medium is prepared by using HiVeg peptone and HiVeg extract in place of Peptic digest of animal tissue and Beef extract respectively used in the conventional medium, thus making it free from BSE/TSE risks. CPC HiVeg Agar Base is the modification of Cellobiose Polymyxin and Colistin (CPC) Agar Base formulated as per APHA (1) for the cultivation and identification of *Vibrio* species from foods. CPC HiVeg Agar Base is a selective and differential agar medium, designed to differentiate *Vibrio vulnificus* from other *Vibrios*(1). *Vibrio cholerae* strains except *Vibrio cholerae* 01-classical biotype grow on CPC HiVeg Agar Base while most *Vibrio parahaemolyticus* strains do not grow on CPC HiVeg Agar Base.

CPC HiVeg Agar Base contains HiVeg extract and HiVeg peptone which supply the essential nitrogenous compounds to the growing *Vibrios*. Cellobiose is fermented by some *Vibrios* and is indicated by the pH indicator bromo thymol blue which turns yellow at acidic pH. Cresol red is the pH indicator of alkaline range which turns red at alkaline pH. Alkaline pH of the medium enhances the recovery of *Vibrios*.

Prepare dried plates of CPC medium. Transfer a loopful from the surface growth of Alkaline HiVeg Peptone Water (MV618) to the surface of the plate medium by streaking. Incubate CPC HiVeg Agar Base at 40 - 42°C for 18 to 24 hours.

Typical colonies of *Vibrio cholerae* on CPC HiVeg Agar Base are small, smooth, opaque and green to purple in color as CPC HiVeg medium contains two pH indicators viz. bromo thymol blue and cresol red. A purple background will also develop in the CPC HiVeg Agar upon extended incubation.

Quality Control :

Appearance of powder

Light brown coloured, homogeneous, free flowing powder.

Product Profile :

Vegetable based (Code MV)☉	Animal based (Code M)
MV1241 HiVeg peptone HiVeg extract	M1241 Peptic digest of animal tissue Beef extract

Recommended for : Cultivation and identification of *Vibrio* species from foods.

Reconstitution : 65.08 g/l

Quantity on preparation (100g) : 1.53 L

pH (25°C) : 7.6 ± 0.2

Supplement : CPC Supplement (FD110)

Sterilization : 121°C / 15 minutes.

Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity

Olive-green to light brown coloured, clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 6.5% w/v aqueous solution is pH 7.6 ± 0.2 at 25°C

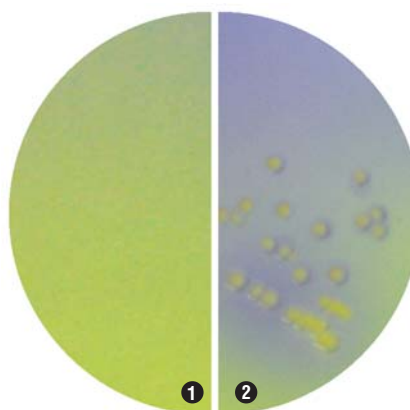
Cultural Response

Cultural characteristics observed after an incubation at 40 ± 2°C for 18 - 24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Vibrio cholerae</i> (15748)	10 ² -10 ³	good - luxuriant	>70%	green - purple
<i>Vibrio parahaemolyticus</i> (17802)	10 ² -10 ³	inhibited	-	-

References :

1. Vanderzant C and Splittstoesser DF (Eds.), 1992, Compendium of Methods For The Microbiological Examination of Foods, 3rd ed., APHA, Washington, D.C.



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1. Control
2. *Vibrio cholerae*