

## Tryptose Cycloserine Dextrose HiVeg™ Agar Base

MV1233

Tryptose Cycloserine Dextrose HiVeg Agar Base is recommended for the isolation of mesophilic spore forming anaerobes in food spoilage.

**Composition \*\* :**

Ingredients	Grams/Litre
HiVeg hydrolysate No. 1	15.0
Papaic digest of soyabean meal	5.0
Yeast extract	5.0
Ferric ammonium citrate	1.0
Agar	20.0

Final pH (at 25°C) 7.6 ± 0.2

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

**Directions :**

Suspend 23.0 grams in 500 ml. distilled water. If desired, add 0.5 to 1.0% dextrose. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 10 minutes. Cool to 50°C and aseptically add one vial of T.S.C. Supplement (FD014). Mix well and pour into sterile petri plates.

**Principle and Interpretation :**

This medium is prepared by using vegetable peptones which are free from BSE/TSE risks associated with animal based peptones. Tryptose Cycloserine Dextrose HiVeg Agar Base is the modification of Tryptose Cycloserine Dextrose Agar Base which is used for isolation of mesophilic spore forming anaerobes in food spoilage (1). This medium is equally potent in performance as the original Tryptose Cycloserine Dextrose Agar Base which has been effectively used as selective media for the isolation and enumeration of mesophilic anaerobic spore formers from environmental samples collected from cannery plant surveys (2).

HiVeg hydrolysate No.1, Papaic digest of soyabean meal, yeast extract provide nitrogenous compounds, carbon, vitamin B complex and trace elements essential for *Clostridium* growth. Incorporation of D-cycloserine in this medium effectively inhibits growth of most *Enterococci*. Some anaerobes reduce sulphite to hydrogen sulphide (H<sub>2</sub>S) which is indicated by blackening of the colonies due to presence of ferric ammonium citrate

**Product Profile :**

Vegetable based (Code MV) ©	Animal based (Code M)
<b>MV1233</b> HiVeg hydrolysate No. 1	<b>M1233</b> Tryptose
<b>Recommended for</b>	: Isolation of mesophilic spore forming anaerobes in food spoilage.
<b>Reconstitution</b>	: 46.0 g/l
<b>Quantity on preparation (500g)</b>	: 10.86 L
<b>pH (25°C)</b>	: 7.6 ± 0.2
<b>Supplement</b>	: T.S.C. Supplement (FD014), Dextrose, if desired.
<b>Sterilization</b>	: 121°C / 10 minutes.
<b>Storage</b>	: Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

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

Yellow coloured, homogeneous, free flowing powder.

**Gelling**

Firm, comparable with 2.0% Agar gel.

**Colour and Clarity**

Light amber coloured, clear to slightly opalescent gel forms in petri plates.

**Reaction**

Reaction of 4.6% w/v aqueous solution is pH 7.6 ± 0.2 at 25°C

**Cultural Response**

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>Clostridium perfringens</i> (12924)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	>70%
<i>Clostridium sporogenes</i> (11437)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	>70%

**References :**

- Vanderzant C and Splittstoesser D (Eds) 1992, Compendium of Methods of the Microbiological Examination of Foods, 3<sup>rd</sup> ed., APHA, Washington D.C.
- Lake, D.E. Leseniewski, R.S., Anderson, J.E., Graves, R.R. and Bremser, J.F. 1985 b. Enumeration and isolation of mesophilic anaerobic spore formers from cannery post-processing equipment, J. of Food Protection 48:794.