

## Tryptose Blood Agar Base w/ Yeast Extract, HiVeg™

MV450

Tryptose Blood Agar Base with Yeast Extract, HiVeg is used with or without blood for culturing fastidious microorganisms.

**Composition \*\* :**

Ingredients	Grams/Litre
HiVeg hydrolysate No. 1	10.0
HiVeg extract	3.0
Yeast extract	1.0
Sodium chloride	5.0
Agar	15.0

Final pH (at 25°C) 7.3 ± 0.2

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

**Directions :**

Suspend 34 grams in 1000 ml. 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. Aseptically add 5% sterile defibrinated blood. Mix well. Dispense as desired.

**Principle and Interpretation :**

This medium is prepared by using vegetable peptones i.e. HiVeg hydrolysate No.1 and HiVeg extract which are free from BSE/TSE risks. The nutritional properties of these are equivalent to animal based peptones i.e. Tryptone and Beef extract respectively. This medium is the modification of Tryptone Blood agar media as described by Casman (1,2) and recommended by APHA (3). This medium like the conventional medium is used as a basal medium for preparing blood Agar for the cultivation of many fastidious bacteria to determine their haemolytic reactions. Initial use of Dextrose has been discontinued (2) as it interferes with the haemolytic reaction.

HiVeg hydrolysate No.1, HiVeg extract and yeast extract provide nitrogenous and carbonaceous compounds, sulphur, vitamin B complex and trace elements essential for bacterial metabolism. This medium keeps the blood cells in a good state and also help in forming distinct haemolysis. Tryptose Blood Agar Base w/Yeast Extract, HiVeg favours the good growth of *Neisseria meningitidis* and *Streptococcus pneumoniae*. This medium can be used without the supplementation of blood. Biochemical test for further identification is necessary.

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

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

**Gelling**

Firm, comparable with 1.5% Agar gel.

**Colour and Clarity**

Basal medium yields yellow coloured slightly opalescent gel. With addition of 5% v/v defibrinated sterile blood cherry red coloured, opaque gel forms in petri plates.

**Reaction**

Reaction of 3.4% w/v aqueous solution is pH 7.3 ± 0.2 at 25°C.

**Product Profile :**

Vegetable based (Code MV) ©	Animal based (Code M)
<b>MV450</b> HiVeg hydrolysate No. 1 HiVeg extract	<b>M450</b> Tryptose Beef extract
<b>Recommended for</b>	: Culturing fastidious microorganisms.
<b>Reconstitution</b>	: 34.0 g/l
<b>Quantity on preparation (500g):</b>	14.70 L
<b>pH (25°C)</b>	: 7.3 ± 0.2
<b>Supplement</b>	: Defibrinated sheep blood.
<b>Sterilization</b>	: 121°C / 15 minutes.
<b>Storage</b>	: Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

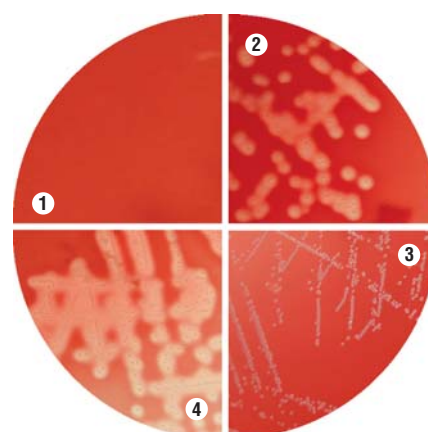
**Cultural Response**

Cultural characteristics observed after an incubation at 35-37°C for 40 - 48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth w/o blood	Growth w/blood	Recovery w/blood	Haemolysis
<i>Neisseria meningitidis</i> (13090)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	luxuriant	>70%	none
<i>Staphylococcus aureus</i> (25923)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	luxuriant	>70%	beta
<i>Staphylococcus epidermidis</i> (12228)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	luxuriant	>70%	gamma
<i>Streptococcus pneumoniae</i> (6303)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	luxuriant	>70%	alpha
<i>Streptococcus pyogenes</i> (19615)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	luxuriant	>70%	beta

**References :**

1. Casman E.P., 1942, J. Bacteriol., 43:33.
2. Casman E.P., 1947, Am. J. Clin. Path., 17 : 281.
3. American Public Health Association, 1970, Diagnostic Procedures and Reagents, 5<sup>th</sup> ed. APHA Inc., New York.



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1. Control
2. *Staphylococcus aureus*
3. *Staphylococcus epidermidis*
4. *Streptococcus pyogenes*