

## Hugh Leifson Glucose HiVeg™ Medium

MV871

Hugh Leifson Glucose HiVeg Medium is recommended for the differentiation of *Staphylococci* from *Micrococci* on the basis of their ability to ferment glucose anaerobically.

**Composition\*\* :**

Ingredients	Grams/Litre
HiVeg peptone	2.00
Yeast extract	0.50
Sodium chloride	30.00
Glucose	10.00
Bromo cresol purple	0.015
Agar	3.00

Final pH (at 25°C) 7.4 ± 0.2

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

**Directions :**

Suspend 45.52 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense into test tubes in duplicate for aerobic and anaerobic fermentation. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool the tubed medium in an upright position.

**Principle & Interpretation :**

Hugh Leifson Glucose HiVeg Medium is prepared by replacing Peptic digest of animal tissue with HiVeg peptone which makes the medium free of BSE/TSE risks. Hugh Leifson Glucose HiVeg Medium is the modification of Hugh Leifson Glucose Medium which is formulated as per FDA (1) for differentiation of *Staphylococci* from *Micrococci*.

The tubes for aerobic and anaerobic fermentation are inoculated and the agar surface of one duplicate tube is covered with layer of sterile paraffin oil, about 25 mm thickness and incubated at 37°C.

Acid production is indicated by change in colour from purple to yellow throughout the medium.

HiVeg peptone and yeast extract provide the nitrogenous compounds and vitamin essential for growth. High salt concentration makes the medium selective. Glucose serves as the fermentable carbohydrate.

**Quality Control :****Appearance of Powder**

Greenish yellow coloured, homogeneous, free flowing powder.

**Product Profile :**

Vegetable based (Code MV)©	Animal based (Code M)
MV871 HiVeg peptone	M871 Peptic digest of animal tissue

**Recommended for** : The differentiation of *Staphylococci* from *Micrococci* on the basis of their ability to ferment glucose anaerobically.

**Reconstitution** : 45.52 g/l

**Quantity on preparation (500g)** : 10.98 L

**(100g)** : 2.19 L

**pH (25°C)** : 7.4 ± 0.2

**Supplement** : None

**Sterilization** : 121°C / 15 minutes.

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

**Gelling**

Semisolid, comparable with 0.3% Agar gel.

**Colour and Clarity**

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

**Reaction**

Reaction of 4.55% w/v aqueous solution is pH 7.4 + 0.2 at 25°C.

**Cultural response**

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of medium	
			Aerobic	Anaerobic
<i>Micrococcus luteus</i> (10240)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	yellow	purple
<i>Staphylococcus aureus</i> (25923)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	yellow	yellow

**References :**

1. Bacteriological Analytical Manual, 1995, 8<sup>th</sup> Ed., Food and Drug Administration, AOAC International, USA.