

## Technical Information

### Hugh Leifson Glucose MiVeg Medium

#### Product Code : VM1871

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

#### Composition

Ingredients	Gms / Litre
MiVeg 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.

#### Principle & Interpretation

Hugh Leifson Glucose MiVeg Medium is prepared by using MiVeg peptone in place of peptic digest of animal tissue thus making the medium free from BSE/TSE risks. This 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.

MiVeg peptone and yeast extract supplies the nitrogenous compounds and vitamins essential for growth of test organism. Selectivity of medium is due to high salt concentration. Glucose act as the fermentable carbohydrate.

#### Methodology

Suspend 45.52 grams of powder media in 1000 ml distilled water. Mix thoroughly and 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.

#### Quality Control

##### Physical Appearance

Greenish yellow coloured, homogeneous, free flowing powder.

##### Gelling

Semisolid, comparable with 0.3% Agar gel.

##### Colour and Clarity of prepared medium

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

##### Reaction

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

##### pH Range

7.2 - 7.6

### Cultural Response/Characteristics

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

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

**Prepared Media:** 2-8° in sealable plastic bags for 2-5 day.

## Further Reading

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

## Disclaimer :

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