TMV 125 - HUGH LEIFSON MEDIUM (VEG.)

INTENDED USE
For detecting aerobic and anaerobic breakdown of glucose.

PRODUCT SUMMARY AND EXPLANATION
Hugh Leifson Veg Medium is prepared by replacing Peptic digest of animal tissue with Veg peptone which makes the medium free of BSE/TSE risks. Hugh Leifson Veg Medium is the modification of medium formulated by Hugh and Leifson. They described the taxonomic significance of fermentative and oxidative metabolism of carbohydrates by gram-negative intestinal bacteria.

COMPOSITION

Ingredients	Gms / Ltr
Veg peptone	2.00
Sodium chloride	5.00
Dipotassium phosphate	0.30
Glucose	10.00
Bromo thymol blue	0.05
Agar	2.00

PRINCIPLE
The medium contains a high concentration of carbohydrate and low concentration of Veg peptone to avoid the possibility of an aerobic organism utilizing Veg peptone and producing an alkaline condition which would neutralize slight acidity produced by an oxidative organism. Dipotassium phosphate promotes fermentation and acts as pH controlling buffer. Agar concentration enables the determination of motility and aids in distribution of acid throughout the tube. Oxidative organisms produce acid in unsealed tube with little or no growth and no acid formation in sealed tube while fermentative organisms produce acid in both sealed and unsealed tubes. Dextrose is the most important carbohydrate used in this medium.

INSTRUCTION FOR USE
- Dissolve 19.4 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense in tubes in duplicate for aerobic and anaerobic fermentations.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool the tubed medium in an upright position.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Light yellow to bluish green homogeneous free flowing powder.
Appearance of prepared medium : Greenish blue colored, clear to slightly opalescent gel forms in tubes as butts.
pH (at 25°C) : 6.8±0.2

INTERPRETATION
Cultural characteristics observed after an incubation.

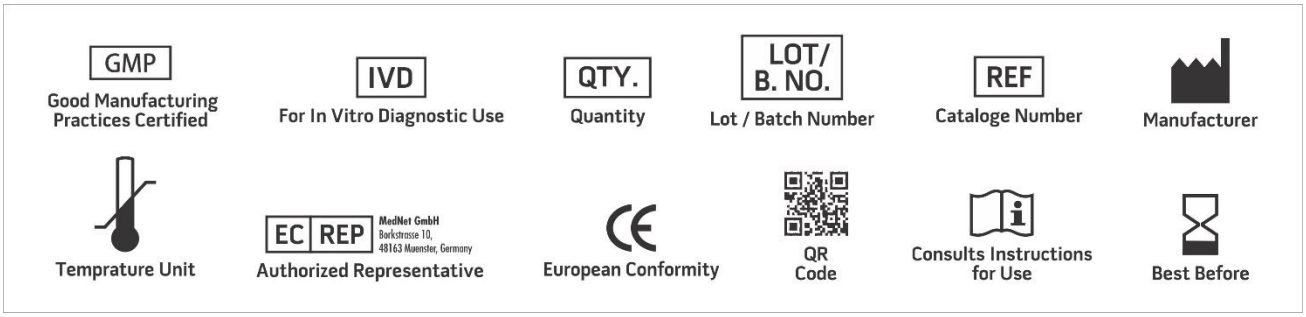
Microorganism	ATCC	Inoculum (CFU/ml)	Motility	Aerobic fermentation	Anaerobic fermentation	Incubation Temperature	Incubation Period
Klebsiella aerogenes	13048	50-100	Positive, growth away from stabline causing turbidity	Acid (yellow) and gas production	Acid (yellow) and gas production	35-37°C	18-48 Hours
Escherichia coli	25922	50-100	Positive, growth away from stabline causing turbidity	Acid (yellow) and gas production	Acid (yellow) and gas production	35-37°C	18-48 Hours
Pseudomonas aeruginosa	27853	50-100	Positive, growth away from stabline causing turbidity	Acid (yellow) production	Unchanged (green) or alkaline (blue)	35-37°C	18-48 Hours
Salmonella Typhi	6539	50-100	Positive, growth away from stabline causing turbidity	Acid (yellow) and gas production	Acid (yellow) and gas production	35-37°C	18-48 Hours
Shigella sonnei	25931	50-100	Negative, growth along the stabline, surrounding medium	Acid (yellow) production	Acid (yellow) and gas production	35-37°C	18-48 Hours

PACKAGING:
In pack size of 100 gm and 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
1. Hugh and Leifson, 1953, J. Bact., 66:24.
2. MacFaddin J.F., 1985 (ed), Cultivation-Identification-Maintenance of Medical Bacteria, Vol I, William and Wilkins, Baltimore.
3. Finegold S.M. Martin W.J. and Scott E.G., 1978, Bailey and Scott's Diagnostic Microbiology, 5th ed., The C.V. Mosby Co., St. Louis.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

Revision: 08 Nov., 2019