TMV 339 - MUELLER HINTON AGAR (VEG.)

INTENDED USE

For cultivation of *Neisseria* spp. & for determination of susceptibility of microorganisms to antimicrobial agents isolated from clinical samples.

PRODUCT SUMMARY AND EXPLANATION

These media are prepared by completely replacing animal based peptones with vegetable peptones. Mueller Hinton Veg Agar is the modification of Mueller Hinton Agar which is recommended for the diffusion of antimicrobial agents impregnated on paper disc through an agar gel as described in CLSI Approved Standard. Mueller Hinton Veg Broth is used for determining Minimal Inhibitory Concentration (MIC) of antimicrobials for aerobic bacteria. Kirby-Bauer et al recommended this medium for performing antibiotic susceptibility tests using a single disc of high concentration.

A standardized suspension of the organisms is swabbed over the entire surface of the agar medium. Paper discs impregnated with certain amount of specific antibiotics are placed on the surface of the medium. The plates are incubated and the zones of inhibition around each disc are measured. It is then determined whether the organism is susceptible, intermediate or resistant to an agent by comparing the zone-sizes to standard zone-sizes. Different factors influence the disc diffusion susceptibility tests as, inoculum concentration, agar depth, disc potency, medium pH and beta-lactamase production by test organisms.

COMPOSITION

Ingredients	Gms / Ltr
Veg infusion	2.00
Veg acid hydrolysate	17.50
Starch	1.50
Agar	17.00

PRINCIPLE

Veg infusion and Veg acid hydrolysate provide nitrogenous compounds, carbon, sulphur and other essential nutrients. Starch acts as a “protective colloid” against toxic substances present in the medium. During autoclaving the starch gets hydrolyzed and provides some amount of dextrose, which then serves as energy source. Growth of *Gonococci* and *Meningococci* is highly satisfactory on this medium.

INSTRUCTION FOR USE

- Dissolve 38.0 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Yellow coloured, homogeneous, free flowing powder.

Appearance of prepared medium : Light amber coloured, clear to slightly opalescent gel forms in petri plates, clear solution in tubes.

pH (at 25°C) : 7.3±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth on chocolate agar	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	35-37°C	18 -24 Hours
Staphylococcus aureus subsp. *aureus*	25923	50-100	Luxuriant	35-37°C	18 -24 Hours
Pseudomonas aeruginosa	27853	50-100	Luxuriant	35-37°C	18 -24 Hours
Escherichia coli	35218	50-100	Luxuriant	35-37°C	18 -24 Hours
Enterococcus faecalis	29212	50-100	Luxuriant	35-37°C	18 -24 Hours
*Staphylococcus aureus*subsp. *aureus*	43300	50-100	Luxuriant	35-37°C	18 -24 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
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3. MacFaddin JF., 1985, Media for Isolation-Cultivation-Identification – Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
4. Ewing., 1986, Edwards and Ewing's identification of Enterobacteriaceae, 4th
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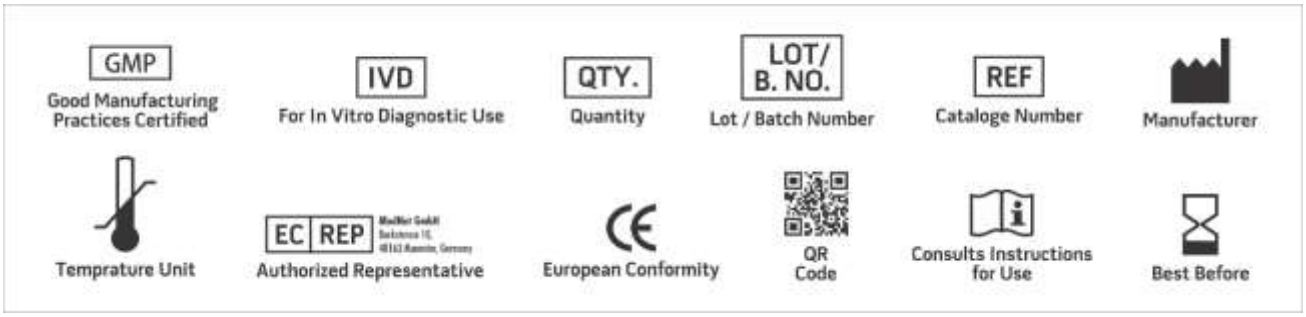

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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