Technical Information

Letheen MiVeg Agar

Product Code : VM1414

Application:- Letheen MiVeg Agar is recommended for the determination of bactericidal activity of quaternary ammonium compounds using *Escherichia coli* or *Staphylococcus aureus*.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	5.00
MiVeg extract	3.00
Dextrose	1.00
Polysorbate 80	7.00
Lecithin	1.00
Agar	15.00
Final pH (at 25°C)	7.0 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Letheen MiVeg Agar is prepared by adding vegetables peptones instead of animal based peptones thus making the medium free from BSE/TSE. This medium is the modification of Tryptone Glucose Extract Agar which was formulated according to APHA (1) f
or the microbiological examination of water which was further modified by Weber and Black (2) by adding lecithin and polysorbate 80 that results in effective neutralization of quaternary ammonium compounds during bactericidal activity testing (3).
MiVeg extract, MiVeg hydrolysate and Dextrose supplies the nitrogenous compounds, carbon, sulphur and other trace elements required for the growth of the organisms. Lecithin and polysorbate 80 helps in the recovery of bacteria from solution containing disinfectant residues used in sanitization of utensils and equipments. Lecithin neutralizes quaternary ammonium compounds and polysorbate 80 neutralizes phenolic disinfectants, hexachlorophene and formalin (4,5). Dehydrated medium may appear moist with 'brown sugar' appearance, does not indicate

Methodology

Suspend 32 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

Dark yellow coloured, may have slight lumps.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium

Light yellow coloured, clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 3.2% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.

pH Range

6.8-7.2

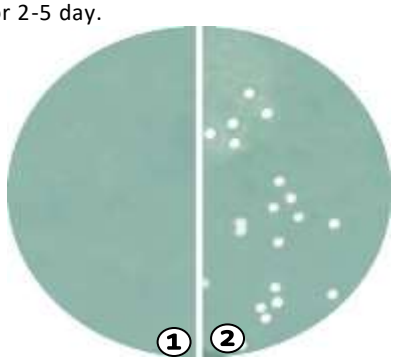
Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
Escherichia coli (25922)	10^2-10^3	good to luxuriant	>70%
Staphylococcus aureus (6538)	10^2-10^3	good to luxuriant	>70%

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: 2-8^0 in sealable plastic bags for 2-5 day.



VM1414 Letheen MiVeg Agar
(Against dark background)

1. Control
2. *Staphylococcus aureus*

Further Reading

1. Eaton A.D., Clesceri L.S. and Greenberg A.E., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st ed, APHA, Washington, D.C.
2. Weber and Black, 1948, Soap Sanitary Chem., 24:134.
3. Weber and Black, 1948, Am. J. Public Health, 38:1405.
4. Bacteriological Analytical Manual, 8th ed; Revision A, 1998, AOAC, Washington, D.C.
5. MacFaddin J.F., 2000 (ed), Biochemical Tests for Identification of Medical Bacteria, 3rd edition, Lippinicott Williams and Wilkins, New York

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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