Technical Information

Aeromonas Isolation MiVeg Medium Base

Product Code : VM1884

Application:- Aeromonas Isolation MiVeg Medium Base with Ampicillin supplement is recommended for selective and differential isolation of *Aeromonas hydrophila* from clinical and environmental specimens.

Composition

Ingredients	Gms / Litre
MiVeg special peptone	5.0
Yeast extract	3.0
L-Lysine hydrochloride	3.5
L-Arginine hydrochloride	2.0
Inositol	2.5
Lactose	1.5
Sorbose	3.0
Xylose	3.75
Synthetic detergent	3.0
Sodium thiosulphate	10.67
Sodium chloride	5.0
Ferric ammonium citrate	0.8
Bromo thymol blue	0.04
Thymol blue	0.04
Agar	12.5
Final pH (at 25°C)	8.0±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Aeromonas Isolation MiVeg Medium Base is prepared by MiVeg special peptone of vegetable source which is equivalent in performance to Peptone special in animal based medium, thereby making the medium BSE/TSE risk free. It also has synthetic detergent as a substitute for the traditional bile salt. Aeromonas Isolation MiVeg Medium Base is the modification of Aeromonas Isolation Medium Base which is based on the formulation of Ryan(1). This medium is a modification of XLD Medium which supports the growth of *Aeromonas, Plesiomonas*, as well as *Enterobacteriaceae* species so the medium is used as universal medium in the investigation of enteric disease. The selectivity of the medium is increased by the addition of Ampicillin (MS2039). The effectiveness of Ampicillin as a selective agent has been reported by several workers (2, 3, 4, 5).
This medium was found to besuperior over other media for detecting *Aeromonas* species in tap water, bottled water and foods including meat, poultry, fish and seafood (6,7,8). *Aeromonas* species occur widely in soil and water causing diseases in fish and amphibians. *Aeromonas* are also found in untreated and chlorinated drinking water, raw food & raw milk (9,10). It is observed that the major cause of gastrointestinal infections by*Aeromonas* species (10, 11) is because of ingesting infected water (12, 13). Aeromonas Isolation MiVeg Medium Base like the conventional medium, serves the same purpose and therefore, can be considered as a useful diagnostic aid for investigating diarrhoeal disease (5, 14).

Methodology

Suspend 28.15 grams of dehydrated media in 500 ml distilled water. Mix throughly. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 45-50°C and aseptically add rehydrated contents of 1 vial of Aeromonas Selective Supplement (MS2039). Mix well and dispense for use as desired.

Quality Control

Physical Appearance

Yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.25% agar gel.

Colour and Clarity of prepared medium

Dark green coloured, clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 5.63% w/v aqueous solution is pH 8.0 ± 0.2 at 25°C.

pH range

7.8-8.2

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colony characteristics
Aeromonas hydrophila (7966)	10^2- 10^3	luxuriant	>50%	dark green, opaque*
Escherichia coli (25922)	10^2- 10^3	inhibited	0%	-
Pseudomonas aeruginosa (27863)	10^2- 10^3	good- luxuriant	>50%	blue/grey,**
Salmonella serotype Typhi (6539)	10^2- 10^3	inhibited	0%	-
Shigella flexneri (12022)	10^2- 10^3	inhibited	0%	-

Key : * = with dark centres; ** = transluscent pinpoint

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 days.

Further Reading

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12. George W.L., 1987, Clin. Microbiol., Newsletter 9, 121.
13. Holmberg S.D., et al, 1986, Ann. Intern. Med., 105:683.
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