Technical Information

Modified Rappaport Vassiliadis Medium

Product Code: DM 2137I

Application: - Modified Rappaport Vassiliadis Medium is recommended selective for the isolation of *Salmonella* species from food and environmental specimens.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	5.000
Sodium chloride	8.000
Monopotassium phosphate	1.600
Magnesium chloride. hexahydrate	40.000
Malachite green	0.040
Final pH (25°C)	5.2±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

The original formulation described by Rappaport et al [1] with magnesium chloride hexahydrate was modified by Vassiliadis et al [2] by lowering the concentration of malachite green and raising the incubation temperature to 43°C. This medium is recommended as the selective enrichment medium for isolation of Salmonella from food and environmental specimens. Recently ISO committee has recommended the medium with casein enzymic hydrolysate for the detection of Salmonellae [3]. The casein enzymic hydrolysate is reported to enhance the growth of Salmonella.

The test specimen is added to Buffered Peptone Water (DM1614) and incubated at 35°C for 16 - 20 hours. This pre-enriched peptone water culture is inoculated into Modified Rappaport Vassiliadis Medium and incubated at 42±1°C for 24-48 hours and further subcultured on Brilliant Green Agar (DM1016).

Methodology

Suspend 30.07 grams of dehydrated medium in 1000 ml distilled water. Shake well & heat gently if necessary to dissolve the medium completely. Dispense as desired into tubes and sterilize by autoclaving at 10 lbs pressure (115°C) for 15 minutes.

Quality Control

Physical Appearance
Light yellow to light blue coloured homogeneous free flowing powder
Colour and Clarity of prepared medium
Blue coloured clear solution without any precipitate.
Reaction
Reaction of 3% w/v aqueous solution at 25°C. pH : 5.2±0.2
pH range 5.00-5.40
Cultural Response/ characteristices
DM 2137I: Cultural characteristics observed after an incubation at specified temperature for 24-48 hours.

Organism	Inoculum (CFU)	Recovery at 37°C	Recovery at 42 ± 1°C
Escherichia coli ATCC 25922	50-100	fair	poor
Salmonella Paratyphi B ATCC 8759	50-100	good	good
Salmonella Typhi ATCC 6539	50-100	fair-good	fair
Salmonella Typhimurium ATCC 14028	50-100	luxuriant	luxuriant

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 days.

Further Reading

1. Rappaport F., Konforti N. and Navon B., 1956, J. Clin. Path., 9:261.
2. Vassiliadis P. et al, 1976a, Annales de Microbiologie (Institut Pasteur), 127B: 195.
3. International Organization for Standardization (ISO), 1993, Draft ISO/DIS 6579.

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