Technical Information

Rappaport Vassiliadis Medium

Product Code: DM 1880B

Application: - Rappaport Vassiliadis Medium is used for enrichment of *Salmonellae* under conditions of high osmotic pressure, low pH and 43°C, with modest nutritional requirements.

Composition**

Ingredients	Gms / Litre
Papaic digest of soyabean meal	4.500
Sodium chloride	7.200
Potassium dihydrogen phosphate	1.260
Dipotassium hydrogen phosphate	0.180
Magnesium chloride, anhydrous	28.600
Malachite green	0.036
Final pH (at 25°C)	5.2±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Rappaport Vassiliadis Medium is designed according to the revised formulation by Van Schothorst et al (1) and is recommended for the selective enrichment of Salmonellae from food and environmental specimens. This medium is a modification of the Rappaport Vassiliadis Enrichment Broth described by Van Schothorst and Renauld (2). Addition of magnesium chloride to the medium was reported by Peterz et al (3).

Salmonella species can be isolated from human faeces without pre-enrichment by using this medium. *Salmonella* generally survive at little high osmotic pressure, grow at slightly low pH and are resistant to malachite green compared to other bacteria. Papaic digest of soyabean meal supplies essential growth nutrients. Potassium phosphate buffers the medium to maintain the constant pH. Sodium chloride helps to maintain the osmotic balance. Malachite green is a dye which inhibits many gram-positive bacteria.

Methodology

Suspend 41.78 grams of dehydrated powder media in 1000 ml distilled water. Mix thoroughly & heat if necessary to dissolve the medium completely. Dispense as desired into tubes and sterilize by autoclaving at #115°C for 15 minutes.

Note: #- Corresponds to 10 lbs pressure

Quality Control

Appearance

Light yellow to light blue homogeneous free flowing powder

Colour and Clarity

Greenish blue clear to slightly opalescent with a slight precipitate.

Reaction

Reaction of 4.18% w/v aqueous solution at 25°C. pH : 5.2±0.2

pH Range

5.00-5.40

Cultural Response

DM1880B: Cultural characteristics observed after an incubation at specified temperature for 18-24 hours.

Organism	Recovery at 35-37°C	Recovery at 42±1°C
Escherichia coli ATCC 25922	fair	poor
Salmonella Enteritidis ATCC 13076	luxuriant	luxuriant
Salmonella Paratyphi B ATCC 8759	good	good
Salmonella Typhi ATCC 6539	fair-good	fair
Salmonella Typhimurium ATCC 14028	luxuriant	luxuriant

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.
Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Van Schothorst M., Renauld A. and VanBeek C., 1987, Food Microbiol., 4:11.
2. Van Schothorst M. and Renauld A., 1983, J. Appl. Bact., 54:209.
3. Peterz M., Wiberg C. and Norberg P., 1989, J. Appl. Bact., 66:523.

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