Rappaport Vassiliadis Salmonella Enrichment Broth IP (Medium 9)

Intended Use
Rappaport Vassiliadis Salmonella Enrichment Broth (Medium 9) is used for selective enrichment of *Salmonella* species under conditions of high osmotic pressure and low pH with modest nutritional requirements from pharmaceutical products in compliance with IP.

Summary
Rappaport *et al.,* formulated an enrichment medium for *Salmonella* that was modified by Vassiliadis *et al.,* Rappaport Vassiliadis Salmonella Enrichment Broth is a selective enrichment for *Salmonella* species. This medium is selective for *Salmonella* species because they are typically resistant to malachite green, high osmotic pressure and low pH. *S. typhi* and *S. choleraesuis* are sensitive to malachite green and may be inhibited.

Principle
Soya peptone provides the essential nutrients for the growth of the bacteria. Phosphate salts act as buffer to maintain the pH. Magnesium chloride maintains the high osmotic pressure and *Salmonella* generally survive at little high osmotic pressure. Malachite green inhibits other microorganisms other than *Salmonella*.

Formula*

Ingredients	**g/L**
Soya Peptone	4.5
Magnesium Chloride Hexahydrate	29.0
Sodium Chloride	8.0
Dipotassium Phosphate	0.4
Potassium Dihydrogen Phosphate	0.6
Malachite Green	0.036
Final pH (at 25°C)	5.2 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of specimen
Water samples; Food samples.

Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 27.11 g of the powder in 1000 mL purified / distilled water.
2. Boil with frequent agitation to dissolve the powder completely.
3. Dispense in tubes as desired.
4. Sterilize by autoclaving at 115°C (10 psi) for 30 minutes or as per validated cycle.

Quality Control

Dehydrated Appearance: Pale green to light blue homogeneous free flowing powder.
Prepared Appearance: Greenish blue to blue coloured, clear solution without any precipitate in tubes.
Growth Promotion Test: Growth promotion is carried out in accordance with the method of IP and growth is observed after an incubation at 30°C-35°C for 18-24 hours. Sub-culturing is carried out using Xylose Lysine Deoxycholate Agar (Harmonized) after enrichment in Rappaport Vassiliadis Salmonella Enrichment Broth (Harmonized) and incubated at 30°C-35°C for 18-48 hours.
Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time, inoculating ≤100 cfu of appropriate microorganism at 30°C-35°C for 18 hours.
Inhibitory Properties: No growth of the test microorganism occurs for the specified temperature and the longest period of time specified inoculating >100 cfu at 30°C-35°C for ≥ 24 hours.

Organism (ATCC)	**Growth**
Salmonella enterica subsp. *enterica* serovar *Typhimurium* (14028)	Good
Salmonella enterica subsp. *enterica* serovar *Abony* (NCTC 6017)	Good
Staphylococcus aureus subsp. *aureus* (6538)	Inhibited

Note: No growth of the organism should occur for the inhibitory test. Inoculum for good growth is 10 - 100 cfu and that for Inhibition is greater than 100 cfu.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Rappaport, Konforti and Navon. 1956. J. Clin. Pathol. 9:261.
2. Vassiliadis, Trichopoulos, Kalandidi and Xirouchaki. 1978. J. Appl. Bacteriol. 44:233.
3. The United States Pharmacopoeia, 2012, The United States Pharmacopoeial Convention. Rockville, MD.
4. British Pharmacopoeia, 2012, The Stationery Office British Pharmacopoeia.
5. European Pharmacopoeia, 2012, European Dept. for the quality of Medicines.
6. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	**Product description**	**Pack Size**
201180060500	Dehydrated Culture Media	500 g
201180062500	Dehydrated Culture Media	2.5 k
201180065000	Dehydrated Culture Media	5 k
201180070500	Dehydrated Culture Media (IP)	500 g
203180240010	Ready Prepared Tube	25 x 10 mL