# Rappaport Vassiliadis Salmonella Enrichment Broth (Harmonized) (Sterile 10 mL Vials)

### Intended Use

Rappaport Vassiliadis Salmonella Enrichment Broth is a selective enrichment medium for Salmonella species from pharmaceutical products in accordance with microbial limit testing by harmonized methodology of USP/EP/JP/JP/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.	

# **Directions**

- 1. Bring the Rappaport Vassiliadis Salmonella Enrichment Broth (Harmonized) vial to the room temperature 22°C-30°C.
- 2. Use Rappaport Vassiliadis Salmonella Enrichment Broth (Harmonized) as per required application.

# **Quality Control**

Appearance: Blue coloured, clear solution.

Sterilization Method: Sterilized by autoclaving at 115°C for 30 minutes.

**Sterility Assurance Level:** Sterility assurance level of media was validated against *Bacillus subtilis* '5230' biological indicator. The spore ampoules were exposed at 115°C and incubated at 35°C-39°C for 3 days along with unexposed spore ampoules.

Exposed Spore Ampoules - No turbidity and no colour change (Red).

Unexposed Spore Ampoules - Turbidity observed with change in colour to yellow.

**Growth Promotion Test:** Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP/IP/BP and growth is observed after an incubation at 30°C-35°C for 18-24 hours. Subculturing 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 10-100 cfu (at 30°C-35°C for 18-24 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  $30^{\circ}$ C- $35^{\circ}$ C for  $\ge 24$  hours).

Growth Promoting:	
Organism (ATCC)	Growth
Salmonella enterica subsp. enterica serovar Typhimurium (14028)	Good
Salmonella enterica subsp. enterica serovar Abony (NCTC 6017)	Good

# Inhibitory

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.

# Remarks

- 1. Do not use media bottles that exhibit any damage, cracks, microbial contamination, discolouration, drying or any other sign of deterioration.
- 2. Good laboratory practices and hazard precautions must be observed at all times.
- 3. After use media containers, sample, sample containers and other contaminated materials must be sterilized or incinerated before discarding.
- 4. All autoclaved biohazards should be disposed off in accordance with state and local environmental regulations.
- 5. Only qualified personnel who have been trained in microbiological procedures should handle all infected specimens and inoculated culture media.
- User should ensure that any machinery or apparatus used and by chance contaminated must be safely disinfected or sterilized. The environment in which microbiological cultures are handled must also be taken into account.

# Storage and Stability

- 1. Store the ready to use Rappaport Vassiliadis Salmonella Enrichment Broth (Harmonized) at 15°C-25°C in a cool, dry place away from light.
- 2. Stability of the kit is as per expiry date mentioned on the label.

# 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.

# References

- 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<sup>®</sup>, A Division of Tulip Diagnostics (P) Ltd.

# **Product Presentation:**

Cat. No.	Product Description	Pack Size
203180240010	Ready Prepared Tube	25 x 10 mL

#### Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.