TM 1282 – RAPPAPORT VASSILIADIS SOYA BROTH (RVS BROTH)

INTENDED USE

For selective enrichment of Salmonellae species from the food and animal feeding stuffs.

PRODUCT SUMMARY AND EXPLANATION

Rappaport Vassiliadis Soya Broth is designed according to the revised formulation by Van Schothorst et al and is recommended for the selective enrichment of Salmonellae from pharmaceutical products. This medium can also be used in direct enrichment of samples containing low inoculum. Present medium is a modification of the Rappaport Vassiliadis Enrichment Broth described by Van Schothorst and Renauld. Addition of magnesium chloride to the medium was reported by Peterz et al. *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. These characteristics are exploited in this medium for selective enrichment of *Salmonella*. This medium was reported to be superior to *Salmonella* selective medium like Tetrathionate Broth and Selenite enrichment broth and to Tetrathionate-Brilliant Green Broth for the detection of Salmonellae in milk samples. The enriched culture of Rappaport Vasiliadis Soya Broth can be further subcultured and isolated on Brilliant Green Agar or Deoxycholate Citrate Agar, Xylose Lysine Deoxycholate Agar.

COMPOSITION

Ingredients	Gms / Ltr
Papaic digest of soyabean meal	4.500
Sodium chloride	8.000
Potassium dihydrogen phosphate	0.600
Dipotassium phosphate	0.400
Magnesium chloride. hexahydrate	29.000
Malachite green	0.036

PRINCIPLE

This medium consists of Magnesium chloride present which raises the osmotic pressure. Natural sugars of Papaic digest of soyabean meal provide essential growth nutrients and enhance the growth of *Salmonella*. Phosphate buffers the medium to maintain constant pH. Sodium chloride maintains the osmotic balance. Malachite green inhibits many gram-positive bacteria, while selectively enrich *Salmonella*. The relatively lower concentration of nutrition, also aids selective enrichment of *Salmonella*.

INSTRUCTION FOR USE

- Dissolve 27.11 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense as desired into tubes and sterilize by autoclaving at 115°C for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to light blue homogeneous free flowing powder.
Appearance of prepared medium : Greenish blue clear to slightly opalescent with a slight precipitate
pH (at 25°C) : 5.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation. Recovery is carried out using Xylose Lysine Deoxycholate Agar after enrichment.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of Colony	Incubation Temperature	Incubation Period
Salmonella Typhimurium	14028	50-100	Luxuriant	Red with black centers	30-35°C	18-24 Hours
Staphylococcus aureus	6538	>=10^3	Inhibited	-	30-35°C	18-24 Hours
Escherichia coli	25922	50-100	None-poor	Yellow	30-35°C	18-24 Hours
Escherichia coli	8739	50-100	None-poor	Yellow	30-35°C	18-24 Hours
Salmonella Enteritidis	13076	50-100	Luxuriant	Red with black centers	30-35°C	18-24 Hours
Salmonella Paratyphi B	8759	50-100	Luxuriant	Red with black centers	30-35°C	18-24 Hours
Staphylococcus aureus	25923	>=10^3	Inhibited	-	30-35°C	18-24 Hours
Enterococcus faecalis	29212	>=10^3	Inhibited	-	30-35°C	18-24 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for

the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

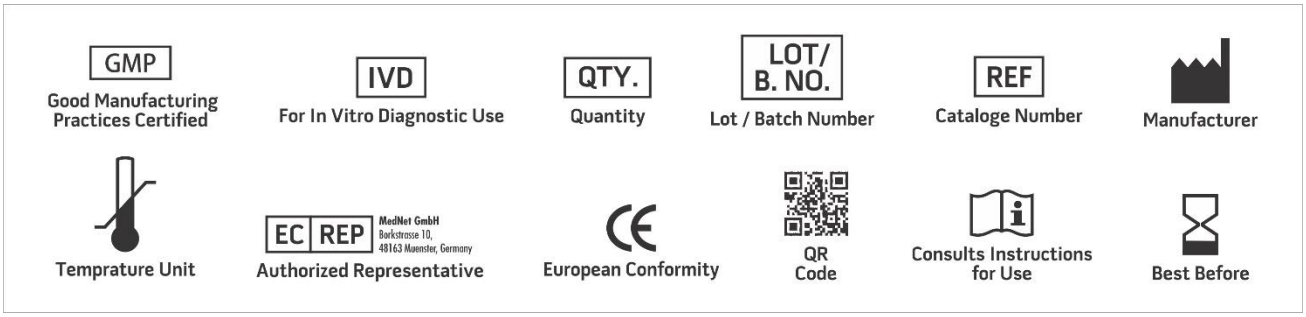
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

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 4.McGibbon L., Quail E. and Fricker C.R. 1984, Inter. J. Food Microbiol. 1:171.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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