TM 1070 – RAPPAPORT VASSILIADIS SOYABEAN MEAL BROTH (RVSM)

INTENDED USE

For enrichment and isolation of Salmonellae.

PRODUCT SUMMARY AND EXPLANATION

Rappaport Vassiliadis Soyabean Meal Broth (RVSM) is modification of the Rappaport Vassiliadis Enrichment Broth, revised by van Schothorst. This medium is recommended as the selective enrichment medium for isolation of *Salmonella*. van Schothorst modified the original formula by addition of dipotassium hydrogen phosphate to buffer the medium and addition of anhydrous magnesium chloride to enhance the reliability of enrichment broth. Peterz et al have also emphasized the importance of the concentration of magnesium chloride in the final medium.

The test specimen is added to Buffered Peptone Water and incubated at 35°C for 16 - 20 hours. This pre-enriched peptone water culture is inoculated into RVSM Broth and incubated at 42 ± 1°C for 24 - 48 hours and further subcultured on Brilliant Green Agar. For faecal specimens, no pre-enrichment is needed. Add 1 or 2 loopful of liquid faeces (or an emulsion of faeces in saline) to 10 ml of RVSM Broth pre-warmed to 42°C. Incubate at 42 ±1°C for 24 hours and streak on to a selective agar.

COMPOSITION

Ingredients	Gms / Ltr
Papaic digest of soyabean meal	4.500
Sodium chloride	7.200
Potassium dihydrogen phosphate	1.260
Dipotassium hydrogen phosphate	0.180
Magnesium chloride	13.580
Malachite green	0.036

PRINCIPLE

This medium consists of papaic digest of soyabean meal which provides essential growth nutrients. Magnesium chloride raises the osmotic pressure in the medium. Malachite green is inhibitory to organisms other than Salmonellae. The low pH of the medium, combined with the presence of malachite green and magnesium chloride, helps to select for the highly resistant Salmonella species. Phosphates buffer the medium to maintain the constant pH. Sodium chloride maintains the osmotic balance.

INSTRUCTION FOR USE

- Dissolve 26.75 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense as desired into tubes and sterilize by autoclaving at 10 psi pressure (115°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to light blue homogeneous free flowing powder.
Appearance of prepared medium : Blue coloured clear solution without any precipitate.
pH (at 25°C) : 5.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth at 42±1°C	Growth at 35-37°C	Incubation Period
Salmonella Typhimurium	14028	50-100	Good-luxuriant	Good-luxuriant	18-24 Hours
Escherichia coli	25922	50-100	Fair	Poor	18-24 Hours
Salmonella Paratyphi B	8759	50-100	Good	Good	18-24 Hours
Salmonella Typhi	6539	50-100	Fair-good	Good	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.

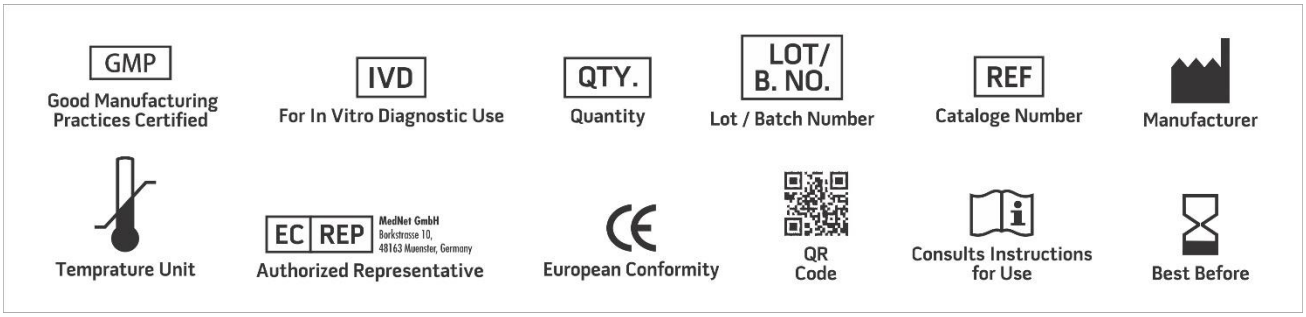
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Rappaport F., Konforti N. and Navon B., 1956, J. Clin. Pathol., 9, 261-266
2. Van Schothorst M., Renauld A. and VanBeek C., 1987, Food Microbiol., 4:11-18.
3. Van Schothorst M. and Renauld A., 1983, J. Appl. Bacteriol., 54:209-215.
4. Peterz M., Wiberg C. and Norberg P., 1989, J. Appl. Bacteriol., 66,523-528.



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

***For Lab Use Only**

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