

TECHNICAL DATA SHEET

Modified Rappaport Vassiliadis Medium

Principle

The Modified Rappaport Vassiliadis Medium is the modification of the R10 medium (Rappaport et.al. 1956) or RV broth (Vassiliadis et.al. 1978). The media composed of soya peptone, magnesium chloride, sodium chloride, potassium dihydrogen phosphate, and malachite green. Soya peptone serves carbon and nitrogen sources for growth requirements. Magnesium chloride raises the osmotic pressure in the medium. The malachite green and magnesium chloride together act as selective agent and inhibit the growth of other organisms than *Salmonellae*. The low pH of the medium (5.2 ± 0.2 at 25°C), combined with the presence of malachite green and magnesium chloride, provides selectivity to highly resistant *Salmonella spp*. The phosphate buffers the medium.

Use: As a selective enrichment medium for the isolation of Salmonella species from food & environmental specimens.

Contents*

Ingredients	Gram/1.110 Litre
Soya Peptone	5.000
Magnesium Chloride	40.000
Sodium Chloride	8.000
Potassium Dihydrogen Phosphate	1.600
Malachite Green	0.040
pH at 25°C	5.2 ± 0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 30.00 (equivalent to dry weight) grams in 1000 ml distilled water. Sterilize by autoclaving at 10 lbs pressure (115°C) for 15 min, cool it to $42-45^{\circ}\text{C}$ and inoculate test sample aseptically.

Specimens' types analyzed

Pharmaceutical samples, clinical and non-clinical samples etc.

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Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Pale yellow with blue ting colored free flowing, homogeneous powder
Reaction of 3.00 % solution	5.2 ±0.2 at 25 °C
pH	5.00- 5.40
Color and clarity of ready medium	Blue colored opalescent solution
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 °C for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 °C for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Cultural characteristics observed after incubation at different temperatures for 24-48 hours, when subcultured on XLDA and then incubated at 35-37°C for 18-24 hours.

Organism	Inoculum	Growth	Recovery	Colony color (On XLD Agar)
<i>Salmonella typhimurium</i> (ATCC 14028)	50-100	Luxurious	70-75%	Red with black centers

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Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Note: Sterilize media immediately after reconstitution.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

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