

## Rappaport Vassiliadis Broth, RVS (i23246)

For the selective enrichment of *Salmonella* with the exception of *Salmonella typhi* and *Salmonella paratyphi A* from foodstuffs and other materials.

Industry: Food / Water / Final product Quality Control  
Pharmaceutical / Veterinary

## Principles & Uses

Rappaport Vassiliadis Broth, vital for isolating *Salmonella* from diverse sources, is endorsed by the European Pharmacopoeia. Its selective enrichment is facilitated by soy peptone, offering essential nutrients, potassium phosphates for pH balance, magnesium chloride to enhance osmotic pressure, and malachite green for inhibition. This medium outperforms alternatives, especially with low inocula and pre-enrichment.

Its superiority over other *Salmonella* media is evident, even for direct enrichment from samples with low inoculum. This medium relies on *Salmonella*'s ability to thrive under specific conditions, including high osmotic pressures and low pH. The toxic impact of malachite green is neutralized by magnesium chloride.

## Composition (gr/L)

Papaic Digest of Soybean Meal 4.5 g, Sodium Chloride 7.2 g, Potassium Hydrogen Phosphate 1.26g, Dipotassium Hydrogen Phosphate 0.18 g, Magnesium Chloride, anhydrous 13.5 g, Malachite Green 0.036 g.

Final pH at 25°C 5.2 ± 0.2

## Preparation from dehydrated Powder

Suspend 26.8 g of the medium in 1 L of purified water. Dispense 10 mL into glass tubes, cap and autoclave at 115°C for 15 minutes.

## Quality Control

Dehydrated Appearance: Pale green to green, free-flowing, homogeneous.

Prepared Appearance: Dark blue, clear.

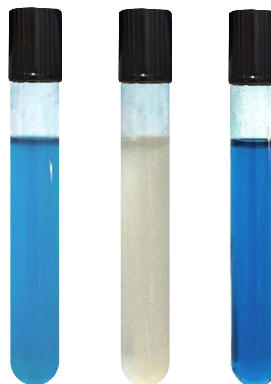
Reaction of 2.68% Solution at 25°C: pH 5.2 ± 0.2

## Cultural Response

Inoculate the culture medium with the sample or material from a pre-enriched culture (e.g., Buffered Peptone Water) and incubate for 24 hours at 41.5 °C. Streak material from the resulting cultures onto selective culture media.

Organism (ATCC*)	Inoculum CFU	Growth
<i>Escherichia coli</i> (25922)	approx. 99 %	≤ 10 %
<i>Salmonella typhimurium</i> (14028)	approx. 1 %	≥ 90 %
<i>Enterococcus faecalis</i> (29212)	> 10 <sup>4</sup>	None
<i>Pseudomonas aeruginosa</i> (27853)	> 10 <sup>4</sup>	None

\*ATCC is a registered trade mark of the American Type Culture Collection.



*Salmonella typhimurium* (left and middle). the more the incubation time, the more color change will be observed. Prepared Culture Media (right).

## Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.