

17173 Rappaport Vassiliadis Broth, modified (Salmonella Enrichment Broth acc. to Rappaport and Vassiliadis, RV Broth)

Used as a selective enrichment medium for the isolation of *Salmonella* species from food and environmental specimens.

Composition:

Ingredients	Grams/1100ml
Papaic digest of soyabean meal	5.0
Sodium chloride	8.0
Monopotassium phosphate	1.6
Magnesium chloride anhydrous *	18.7
Malachite Green	0.04

Final pH 5.2 +/- 0.2 at 25°C

*18.7 g Magnesium chloride anhydrous is equivalent to 40 g Magnesium chloride hexahydrate used in the original formula by Rappaport et al [5].

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:

Suspend 30.0 g 1 litre distilled water. Heat gently if necessary to dissolve the medium completely. Dispense as desired into tubes and sterilize by autoclaving at 115°C for 15 minutes.

Principle and Interpretation:

The malachite green and magnesium chloride concentrations are less than those of the Salmonella Enrichment Broth according to Rappaport (Cat No. 84370) in order to improve the growth of *Salmonella* at 43°C. Papaic digest of soyabean meal is a nitrogen and carbon source and improves the growth of *Salmonella*. Sodium chloride is for osmotic balance and magnesium chloride raises the osmotic pressure in the broth. Malachite green and magnesium chloride largely suppress the growth of the accompanying microbial flora found in the intestine, but not the growth of most Salmonellae. Only *S. typhosa* and *Shigellae* are usually inhibited by malachite green. *S. typhi* and *S. choleraesuis* are sensitive to malachite green and may be inhibited. Lowering pH to 5.2 increases selectivity. Novobiocin (40 mg/litre) can be added to enhance the inhibition of accompanying flora.

Cultural characteristics after 18-24 hours.

Organisms (ATCC)	Recovery 37°C	Recovery 42°C ±1°C
<i>Salmonella paratyphi B</i>	++	++
<i>Salmonella typhi</i> (6539)	+ / ++	++
<i>Salmonella typhimurium</i> (14028)	+++	+++
<i>Escherichia coli</i> (25922)	+	- / +



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Precautions and Disclaimer

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