MSRV (Modified Semisolid Rappaport Vassiliadis) Medium

Medium used for the isolation and identification of motile Salmonella spp.

• CONTENTS (Liter)

Tryptose	4.6 g
Acid Casein Hydrolysate	4.6 g
Sodium Chloride	7.3 g
Monopotassium Phosphate	1.5 g
Magnesium Chloride Anhydrous	10.9 g
Malachite Green Oxalate	0.04 g
Agar	2.7 g

Final pH = 5.2 ± 0.2 at 25°C

• PROCEDURE

Suspend 31.64 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. DO NOT AUTOCLAVE. Cool to 45 - 50°C in water bath. Aseptically add 2 vials of Novobiocin supplement (MB-N1821). Mix well. Pour into petri dishes.

Novobiocin supplement

1 vial contents (each vial is sufficient for 500mL of medium)

Novobiocin	0.01 g

• INTERPRETATION

MSRV (Modified Semisolid Rappaport Vassiliadis) Medium is a medium used for the isolation and identification of motile Salmonella spp. Tryptose and acid casein hydrolysate are the carbon, nitrogen, amino acids, and vitamin sources. Sodium chloride maintains the osmotic balance. Monopotassium phosphate is the buffering agent. Magnesium chloride anhydrous makes the medium high osmotic pressure. Malachite green oxalate and novobiocin inhibit the microorganisms except Salmonella spp. Agar is the solidifying agent. Low concentration of agar used for the detection of motility. The motile strains of Salmonella produce gray-white turbid zone extending out from inoculated spot. If the medium remains blue-green without turbid zone around the spots of inoculation, the test sample is considered negative for motile Salmonella.

• TECHNIC

Inoculate by spotting MSRV agar plates with approximately 30 to 100 uL of growth culture. Incubate upright position at 41.5 ± 1°C for 24 - 48 hours. DO NOT INVERT THE PLATES. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium
Appearance: free-flowing, homogeneous
Color: pale green to green
Prepared medium
Appearance: clear
Color: blue
Incubation conditions: 41.5 ± 1°C / 24 - 48 hours

Microorganism	ATCC	Inoculum CFU	Growth	Characteristics
Salmonella enteritidis	NCCP 12236	10^3-10^4	good	gray-white turbid zone
Salmonella typhimurium	14028	10^3-10^4	good	gray-white turbid zone
Escherichia coli	25922	≥10^4	inhibited	-
Enterococcus faecalis	29212	≥10^4	inhibited	-

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

• REFERENCES

1. DeSmedt, Bolderdijk, Rappold, Lautenschlaeger.(1986). J.Food Prot. 49:510-514.
2. IOCC/ISCM,. analytical Method 118, 1990. microbiological Examination of Chocolate and other Cocoa Products; Draft Standard Method
3. Rapporto ISTISAN 96/35. ISSN 1123-3117. Metodi di analisi per il controllo microbiologico degli alimenti. Raccolta a cura di D. De Medici, L. Fenicia, L.Orefice e A.Stacchini.

• PACKAGE

Cat. No : MB-M1018 MSRV (Modified Semisolid Rappaport Vassiliadis) Medium	500 G

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