

**BIOMARK Laboratories-INDIA**

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**TECHNICAL SHEET**

<b>B1402</b>	<b>Modified Semisolid Rappaport Vassiliadis MediumBase (MSRV)</b>	
<b>Formula</b>		
<b>Ingredients:</b>	<b>gms/lit.</b>	
<b>ISO Specification – MSRV</b>		
<b>Ingredients</b>	<b>g / L</b>	<b>B1402- Modified Semisolid Rappaport Vassiliadis MediumBase (MSRV)</b>
Enzymatic digest of animal and plant tissue	4.600	<b>Ingredients</b>
Acid hydrolysate of casein	4.600	Tryptose
Sodium chloride	7.300	Acid hydrolysate of casein (tryptone)
Potassium dihydrogen phosphate (K <sub>2</sub> HPO <sub>4</sub> )	1.500	Sodium chloride
Magnesium chloride, hexahydrate (MgCl <sub>2</sub> 6H <sub>2</sub> O)	40.000	Potassium dihydrogen phosphate
Malachite green oxalate	0.040	Magnesium chloride, anhydrous
Agar	2.700	Malachite green oxalate
Final pH ( after sterilization) at 20-25°C	5.10- 5.40	Agar
		Final pH (at 25°C)
		5.2 ± 0.2
Final pH (at 25°C) : 5.2 ± 0.2		
<b>Directions:</b>		
Suspend 31.66 gram in 1000 ml purified/distilled water. Heat to boiling with frequent agitation to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 45-50°C and aseptically add the rehydrated contents of 1 vial of Novobiocin Selective Supplement (BF163) or 4 vials of Novobiocin supplement (BF083). Mix well and pour into sterile Petri plates. Air dries the plated medium at room temperature for at least one hour.		
Note: The motility of Salmonellas can be drastically reduced when the agar surface becomes too dry. Hence the plates should be well dried before use. If visible moisture occurs on the lid of the plates or the surface of agar, it must be removed. While incubation, incubate the plates aerobically in an upright position for no longer than 24 hours at 42°C		
<b>Principle:</b>		
Acid hydrolysate of casein and Enzymatic digest of animal and plant tissue provides the nitrogenous and carbonaceous substances, long chain amino acids, vitamins and other essential growth nutrients. The motility of other gram positive microorganisms is largely inhibited by the selective agents (magnesium chloride, malachite green and novobiocin). Sodium chloride maintains osmotic balance. Phosphate buffers the medium. The working of medium is based on the ability of Salmonella species to migrate in the selective medium competing with the other motile organisms, thus producing opaque halos of growth. The motile bacteria will show a halo or zone of growth originating from inoculation spot		
<b>QC Tests – (I)Dehydrated Medium</b>		
	Colour :	Light yellow to light blue
	Appearance:	Homogeneous Free Flowing powder
<b>(II)Rehydrated medium</b>		
	pH (post autoclaving/heating) :	5.2 ± 0.2
	Colour (post autoclaving/heating):	Greenish blue to Blue
	Clarity (post autoclaving/heating):	Clear to slightly opalescent semisolid gel forms in Petri plates which may have a slight precipitate.
<b>(III)Q.C. Test Microbiological</b>		
	Cultural characteristics observed after incubation at 42-43°C for 18-24 hours with added Novobiocin Selective Supplement (BF163) or Novobiocin supplement (BF083).	
	MICROORGANISM (ATCC)	GROWTH AT 42±1°C

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	Salmonella enteritidis (13076)	Positive Grey-white, turbid zone extending out from inoculated drop			
	Salmonella typhimurium (14028)	Positive Grey-white, turbid zone extending out from inoculated drop			
	Escherichia coli (25922)	Possible growth at the place of the inoculated drop(s) without a turbid zone			
	Escherichia coli ATCC 8739	Possible growth at the place of the inoculated drop(s) without a turbid zone			
	Enterococcus faecalis ATCC	No growth			
	Enterococcus faecalis ATCC	No growth			
<b>Precautions :</b>	1. For Laboratory Use.				
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.				
<b>Limitations :</b>	1. The medium is intended for the detection of motile Salmonella and is not appropriate for the detection of non- motile Salmonella strains.				
	2. The motility of Salmonellas can be drastically reduced when the agar surface becomes too dry. Hence the plates should be well dried before use. If visible moisture occurs on the lid of the plates or the surface of agar, it must be removed. While incubation, incubate the plates aerobically in an upright position for no longer than 24 hours at 42°C.				
	3. Individual organisms differ in their growth requirement and may show variable growth patterns in the medium				
	4. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.				
	5. Further biochemical tests must be carried out for confirmation				
<b>Use:</b>	Recommended for selective enrichment and isolation of Salmonella from food stuffs and environmental samples from the food production area. The composition and performance criteria of this medium are as per the specifications laid down in ISO 6579-1:2017 and ISO 11133:2014 (E) /Amd. : 2020.				
<b>Storage:</b>	Dehydrated medium- below 30 ° C Prepared mediums– Between 2 to 8°C.				
<b>Packing:</b>	500 gm. Bottle				
<b>Product profile:</b>	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
	<b>B1402</b>	39.47 g/l	12.667/ L	5.2± 0.2	BF163 or BF083

**Disclaimer:**

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related BIOMARKLABORATORIES publications.

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