

MSRV Medium Base

Medium for detection of motile *Salmonella* spp in animal faeces and environmental samples, according to ISO 6579.

TYPICAL FORMULA	(g/l)
Enzymatic Digest of Animal and Plant Tissue	4.6
Acid Hydrolysate of Casein	4.6
Sodium Chloride	7.3
Potassium Dihydrogenphosphate	1.5
Magnesium Chloride anhydrous	10.9
Malachite Green Oxalate	0.04
Agar	2.7
Final pH 5.2 ± 0.1 at 25°C	

DESCRIPTION

Modified semi-solid Rappaport-Vassiliadis (MSRV) Medium Base is used with Novobiocin for the selective enrichment of motile *Salmonellae* in animal faeces and environmental samples. The medium meets the specifications for formulation and performance recommended by ISO 6579 Amendment 1.

PRINCIPLE

Enzymatic digest of animal and plant tissue and acid hydrolysate of casein provide amino acids, nitrogen, carbon, vitamins and minerals. Sodium chloride maintains the osmotic balance of the medium. Potassium dihydrogenphosphate is the buffer. Magnesium chloride raises the osmotic pressure. Malachite green oxalate inhibits organisms other than *Salmonella* spp. Novobiocin is added as a selective agent active mostly against Gram-positive bacteria. Agar is the solidifying agent.

PREPARATION

Suspend 31.6 g of powder in 1 liter of deionized or distilled water. Heat with frequent agitation and boil for 1 minute to completely dissolved the powder. DO NOT AUTOCLAVE. Cool up to 45-50°C. Aseptically, add the contents of 2 vials of Novobiocin Supplement (ref. 81021) each reconstituted with 5 ml sterile distilled water. Mix well. Pour in Petri dishes.

TECHNIQUE

For pre-enrichment, add the sample to Buffered Peptone Water (ref. 414020) at a ratio of 1:9 (e.g. 25 g per 225 ml), homogenize well and incubate at 37 ± 1°C for 16-20 h.

Inoculate the MSRV Medium plates with 0.1 ml of the pre-enrichment culture (inoculate 3 drops in three different spots, equally spaced on the medium surface). Incubate at 41.5 ± 1°C for 18-24 h.

INTERPRETATION OF RESULTS

A grey-white turbid zone extending out from the inoculated drop indicates a positive result for motile *Salmonella* spp.

Negative plates, where the medium remains blue-green around inoculation drops, should be re-incubated for a further 18-24 h.

Subculture should be carried out from the positive plates, with the inoculum being taken from the furthest edge of the migration zone. Presumptive identification is achieved by subculture onto XLD Agar (ref. 10056) and a second *Salmonella* agar of choice such as Chromatic™ *Salmonella* (ref. 11614). Characteristic presumptive *Salmonella* colonies should be confirmed with biochemical and serological tests.

STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for professional use only and must be used by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

REFERENCES

1. ISO 6579:2002/Amd.1:2007. Microbiology of food and animal feeding stuffs – Horizontal method for the detection of *Salmonella* spp. AMENDMENT 1: Annex D: Detection of *Salmonella* spp. in animal faeces and in environmental samples from the primary production stage.
2. DeSmedit J.M., R. Bolderdijk, H. Rappold and D. Lautenschlaeger (1986) Rapid *Salmonella* detection in food by motility enrichment on a modified semi-solid Rappaport-Vassiliadis Medium. J. Food Prot. 49:510-514.
3. Vassiliadis P., D. Trichopoulos, A. Kalandidi and E. Xirouchaki (1978) Isolation of salmonellae from sewage with a new procedure of enrichment. J. Appl. Bacteriol 44:233-239.
4. Rappaport F., N. Konforti and B Navon (1956) A new enrichment medium for certain salmonellae. J. Clin. Pathol. 9:261-266.

Distribué par :

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PRODUCT SPECIFICATIONS

NAME

MSRV Medium Base

PRESENTATION

Dehydrated medium

STORAGE

10-30°C

PACKAGING

Ref.	Content	Packaging
610018	500 g	500 g of powder in plastic bottle
620018	100 g	100 g of powder in plastic bottle

pH OF THE MEDIUM

5.2 ± 0.1

USE

Modified semi-solid Rappaport-Vassiliadis (MSRV) Medium Base is used with Novobiocin for the selective enrichment of motile *Salmonellae* in animal faeces and environmental samples. The medium meets the specifications for formulation and performance recommended by ISO 6579 Amendment 1.

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Powder medium

Appearance: free-flowing, homogeneous

Colour: blue

Ready-to-use medium

Appearance: slightly opalescent, semi-solid gel

Colour: blue

SHELF LIFE

4 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control
 Inoculum for productivity: 10⁴ CFU
 Inoculum for selectivity: 10⁵-10⁶ CFU
 Incubation Conditions: 2 x 18-24 hours at 41.5 ± 1°C

Microorganism

<i>Salmonella</i> Enteritidis	WDCM 00030
<i>Salmonella</i> Typhimurium	WDCM 00031
<i>Escherichia coli</i>	WDCM 00013
<i>Enterococcus faecalis</i>	WDCM 00009








Specification

Grey-white turbid zone extending out from inoculated drop(s)
 After 24-48 h the turbid zone(s) will be (almost) fully migrated over the plate

Grey-white turbid zone extending out from inoculated drop(s)
 After 24-48 h the turbid zone(s) will be (almost) fully migrated over the plate

Possible growth at the place of the inoculated drops(s) without a turbid zone
 No growth

TABLE OF SYMBOLS

LOT Batch code	 Do not reuse	 Manufacturer	 Use by	 Fragile, handle with care
REF Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult instructions for use	

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