



## Rogosa SL Broth

M407

### Intended Use:

A selective medium for cultivation of oral, vaginal and faecal *Lactobacilli*.

### Composition\*\*

Ingredients	g / L
Tryptone	10.000
Yeast extract	5.000
Dextrose (Glucose)	10.000
Arabinose	5.000
Saccharose (Sucrose)	5.000
Sodium acetate	15.000
Ammonium citrate	2.000
Potassium dihydrogen phosphate	6.000
Magnesium sulphate	0.570
Manganese sulphate	0.120
Ferrous sulphate	0.030
Polysorbate 80 (Tween 80)	1.000
Final pH after addition of glacial acetic acid( at 25°C)	5.4±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 59.72 grams in 1000 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Add 1.32 ml glacial acetic acid. Mix thoroughly and distribute into culture tubes or flasks. Heat at 90-100°C for 2-3 minutes. Cool to 45-50°C for direct inoculation. **DO NOT AUTOCLAVE.**

### Principle And Interpretation

Rogosa SL Broth, is known as RMW Broth, it is a modification of media formulated by Rogosa, Mitchell and Wiseman (1,2). This media is used for isolation, enumeration and identification of *Lactobacilli* from foodstuffs and clinical specimens (3,4). Accompanying bacterial flora is suppressed due to the low pH of the medium and also because of the high sodium acetate concentration.

Tryptone, yeast extract provide nitrogenous compounds, sulphur, trace elements and vitamin B complex, essential for growth of *Lactobacilli*. Dextrose, Arabinose, Saccharose are the fermentable carbohydrates. Polysorbate 80 is the source of fatty acids. Ammonium citrate and sodium acetate inhibit moulds, *Streptococci* and many other organisms. Potassium dihydrogen phosphate provides buffering capability. Magnesium sulphate, manganese sulphate and ferrous sulphate are sources of inorganic ions. Low pH of the medium and addition of acetic acid makes the medium selective for *Lactobacilli* inhibiting other bacterial flora (3).

It is recommended that the plates should be incubated at 30°C for 5 days or at 37°C for 3 days in an atmosphere of 95% hydrogen and 5% carbon dioxide (5). High acetate concentration and acidic pH suppress many strains of other lactic acid bacteria. The salt in the formulation makes the medium unsuitable for isolation of dairy *Lactobacilli* e.g. *L. lactis*, *L. bulgaricus* and *L. helveticus* (2,3).

### Type of specimen

Clinical samples - Saliva, faeces, vaginal swab etc.

### Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (6,7).

After use, contaminated materials must be sterilized by autoclaving before discarding.

### Warning and Precautions

In Vitro diagnostic Use only. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

## Limitations :

1. It is recommended that the plates should be incubated at 30°C for 5 days or at 37°C for 3 days in an atmosphere of 95% hydrogen and 5% carbon dioxide (5). If this is not possible, overlay the inoculated plates with a second layer of the agar before incubation.
2. High acetate concentration and acidic pH suppress many strains of other lactic acid bacteria.

## Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label expiry period when stored at within the recommended temperature.

## Quality Control

### Appearance

Cream to yellow homogeneous soft lumps which can be easily broken down to powder form.

### Colour and Clarity of prepared medium

Light yellow coloured clear to slightly opalescent solution in tubes

### Reaction

Reaction of 5.97% w/v aqueous solution after addition of glacial acetic acid at 25°C pH : 5.4±0.2

### pH

5.20-5.60

### Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 40-48 hours, in presence of 5% Carbon dioxide(CO<sub>2</sub>) and 95% H<sub>2</sub>.

Organism	Inoculum (CFU)	Growth
<i>Lactobacillus casei</i> ATCC 9595	50-100	good-luxuriant
<i>Lactobacillus fermentum</i> ATCC 9338	50-100	good-luxuriant
<i>Lactobacillus leichmanni</i> ATCC 4797	50-100	good-luxuriant
<i>Lactobacillus plantarum</i> ATCC 8014	50-100	good-luxuriant
<i>Staphylococcus aureus subsp. aureus</i> ATCC 25923 (00034*)	≥10 <sup>4</sup>	inhibited

Key : \*Corresponding WDCM numbers.

## Storage and Shelf Life

Store dehydrated and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

## Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (6,7).

## Reference

1. Rogosa M., Mitchell J. A. and Wiseman R. F., 1951, J. Bacteriol., 62, 132-133.
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3. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification- Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore. Md.
4. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
5. Sharpe M. L. (Ed.), 1960, Lab-Practice, 9(4): 223.

6. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
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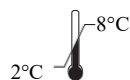
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