



# ROGOSA AGAR

- For in vitro use only -

Catalogue No. PR75

Our Rogosa Agar is a semi-selective medium used for the enumeration, isolation and cultivation of lactobacilli from a variety of samples including clinical samples and food.

Our Rogosa Agar is a modification of the medium described by Rogosa, Mitchell and Wiseman in 1951. Rogosa Agar has given excellent results in the quantitative and qualitative studies of lactobacilli in feces, saliva, and mouth rinses.

The low pH of the medium and the presence of sodium acetate and ammonium citrate makes the medium selective for lactobacilli while inhibiting most other microorganisms. The pH of the medium is adjusted to 5.5 by the addition of glacial acetic acid. The nutritional components include pancreatic digest of casein, yeast extract, and dextrose. Manganese sulfate, magnesium sulfate, ferrous sulfate, and polysorbate 80 provide essential ions and growth factors for culturing a variety of lactobacilli. The various salts in this medium make it unsuitable for the isolation of dairy lactobacilli such as *L. lactis*, *L. bulgaricus*, and *L. helveticus*.

## Formula per Litre of Medium

Pancreatic Digest of Casein .....	10.0 g
Yeast Extract.....	5.0 g
Dextrose.....	20.0 g
Ammonium Citrate.....	2.0 g
Sodium Acetate Trihydrate .....	25.0 g
Magnesium Sulfate.....	0.575 g
Ferrous Sulfate.....	0.034 g
Manganese Sulfate .....	0.05 g
Monopotassium Phosphate .....	2.0 g
Agar.....	15.0 g
Polysorbate 80 .....	1.0 mL
Glacial Acetic Acid .....	1.25 mL

pH 5.5 ± 0.2

## Recommended Procedure

1. Allow medium to reach room temperature.
2. Using an inoculum from the specimen, perform a four-quadrant streak to obtain well-isolated colonies.
3. Incubate in a CO<sub>2</sub>-supplemented atmosphere for 3 days at 35°C or for 5 days at 30°C.
4. Examine plates after incubation.

## Interpretation of Results

Lactobacilli typically produce 1.5 to 3.0-mm, grayish-white, circular, smooth colonies on Rogosa Agar. Other lactic acid bacteria may also grow on this medium and produce similar types of colonies.

Most other organisms are inhibited on Rogosa Agar although enterococci and pediococci may show delayed growth on this medium. Both enterococci and pediococci will produce very small colonies with a diameter ranging from 0.5 to 1.0mm.

Record each specific type of colony morphology present on the medium; subculture colonies to an appropriate non-selective medium for further testing. Additional tests should be performed on isolated colonies from pure culture in order to complete identification.

- *Rogosa Agar is a heat-sensitive medium that is only boiled prior to dispensing therefore the sterility of this product is tested but not absolute*
- *Other organisms such as enterococci, pediococci and Leuconostoc species may grow on this medium*
- *Lactobacillus carnis does not grow on this medium*

## Quality Control

After checking for correct pH, color, depth, and sterility, the following organisms are used to determine the growth performance of the completed medium.

Organism	Expected Result
<i>Lactobacillus acidophilus</i> ATCC 314	Growth
<i>Escherichia coli</i> ATCC 25922	Inhibition
<i>Staphylococcus aureus</i> ATCC 25923	Inhibition

## Storage and Shelf Life

Our Rogosa Agar should be stored away from direct light at 4 to 8°C. The medium side should be uppermost to prevent excessive accumulation of moisture on the agar surface. Under these conditions this medium has a shelf life of 6 weeks from the date of manufacture.

Cat#	Description	Format
PR75	Rogosa Agar [Standard 15x100-mm plate]	10/pkg

## References

1. Rogosa M, Mitchell JA, Wiseman RF. A selective medium for the isolation and enumeration of oral and fecal lactobacilli. *J Bacteriol* 1951; 62:132-3.
2. Rogosa M, Mitchell JA, Wiseman RF. A selective medium for the isolation and enumeration of oral and fecal lactobacilli. *J Dental Res* 1951; 30:682.

3. Ellis RH, Sarles WB. Isolation of antibiotic-resistant lactobacilli. *J Bacteriol* 1958; 75:272.
4. Reuter G. *Int J Food Microbiol* 1985; 2:55-68.
5. MacFaddin JF. *Media for isolation-cultivation-maintenance of medical bacteria, Vol I.* Baltimore: Williams & Wilkins, 1985.

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