

## TM 2305 – ROGOSA AGAR, MODIFIED

### INTENDED USE

For the selective cultivation of Lactobacilli from food.

### PRODUCT SUMMARY AND EXPLANATION

Rogosa Agar is primarily a selective medium for the cultivation of *Lactobacillus*. High acetate concentration and low pH effectively suppress other bacteria, but also many strains of other lactic acid bacteria. The modification of the pH to 6.2 instead of 5.5 alters the selectivity of the medium for the whole group of lactic acid bacteria.

### COMPOSITION

Ingredients	Gms / Ltr
Tryptone	10.000
Yeast extract	5.000
Dextrose (Glucose)	20.000
Potassium dihydrogen phosphate	6.000
Polysorbate 80 (Tween 80)	1.000
Triammonium citrate	2.000
Sodium acetate	15.000
Magnesium sulphate heptahydrate	0.575
Manganese (II) sulphate monohydrate	0.110
Iron (II) sulphate heptahydrate	0.034
Agar	15.000

### PRINCIPLE

The medium consists of Tryptone, yeast extract which provide nitrogenous compounds, sulphur, trace elements and vitamin B complex, essential for growth of Lactobacilli. Glucose acts as fermentable carbohydrate. Polysorbate 80 is the source of fatty acids. Ammonium citrate and sodium acetate inhibit moulds, Streptococci and many other organisms. Monopotassium 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. 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. High acetate concentration and acidic pH suppress many strains of other lactic acid bacteria.

### INSTRUCTION FOR USE

- Dissolve 74.40 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Adjust the pH to about 6.2 at about 50°C with glacial acetic acid (approximately 1.32 ml) and mix thoroughly.
- Heat to 95°C for 3 minutes. DO NOT AUTOCLAVE.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.



### QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Cream to yellow homogeneous soft lumps which can be easily broken down to powder form.
- Appearance of prepared medium** : Light yellow coloured opalescent gel forms in Petri plates.
- pH (at 25°C)** : 6.2 ± 0.1

### INTERPRETATION

Cultural characteristics observed in presence of 5% Carbon dioxide (CO<sub>2</sub>) and 95% H<sub>2</sub> after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Lactobacillus casei</i>	9595	50-100	Good - luxuriant	≥50%	35-37°C	40-48 Hours
<i>Lactobacillus fermentum</i>	9338	50-100	Good - luxuriant	≥50%	35-37°C	40-48 Hours
<i>Lactobacillus leichmann</i>	4797	50-100	Good - luxuriant	≥50%	35-37°C	40-48 Hours
<i>Lactobacillus plantarum</i>	8014	50-100	Good - luxuriant	≥50%	35-37°C	40-48 Hours
<i>Staphylococcus aureus subsp. aureus</i>	25923	≥10 <sup>3</sup>	Inhibited	0%	35-37°C	40-48 Hours

### PACKAGING:

In pack size of 500 gm bottles.

### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.













### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.



**REFERENCES**

1. Reuter,G. (1985)Elective and selective media for lactic acid bacteria .Int.J.Food Microbiol.2,55-68.
7. Rogosa, J.,Mitchell J.A. and Wiseman,R.F.(1951)A selective medium for the isolation and enumeration of oral and fecal lactobacilli J.Bacteriol.62,132-133.
3. ISO(1984)Drafts reports.Enumeration of Lactobacteriaceae in meat and meat products.ISO/TC 34/SC 6/WG 15, no.3 and no.5. International Organization for Standardization,Geneva
4. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification- Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore. Md.
5. Sharpe M. L. (Ed.), 1960, Lab-Practice, 9(4): 223.

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Birkstrasse 10, 49163 Maenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
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