Rogosa Agar, Modified

M1899

Intended Use:

Recommended for the selective cultivation of *Lactobacilli* from food and clinical samples.

Composition**

Ingredients	g / L
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
Final pH after addition of glacial acetic acid(at 25°C)	6.2±0.1

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 74.40 grams (the equivalent weight of dehydrated medium per litre) 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 mins. **DO NOT AUTOCLAVE**. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Rogosa Agar is primarily a selective medium for the cultivation of *Lactobacillus* (1). 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 (2,3).

Tryptone, yeast extract 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 (4). 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.

Type of specimen

Clinical samples - Dental carries, Food samples.

Specimen Collection and Handling

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

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (8,9,10).

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

Warning and Precautions

In Vitro diagnostic Use. 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.The bacteria sustaining low pH, may grow on this media.

2.Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.

3.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.

Performance and Evaluation

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

Quality Control

Appearance

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

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Light yellow coloured opalescent gel forms in Petri plates

Reaction

Reaction of 7.44% w/v aqueous solution with glacial acetic acid at 25°C. pH : 6.2±0.1

pH

6.10-6.30

Cultural Response

Cultural characteristics observed in presence of 5% Carbon dioxide (CO_2) and 95% H2 after an incubation at 35-37°C for 40-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Lactobacillus casei ATCC 9595	50-100	good - luxuriant	>=50%
Lactobacillus fermentum ATCC 9338	50-100	good -luxuriant	>=50%
Lactobacillus leichmanni ATCC 4797	50-100	good -luxuriant	>=50%
Lactobacillus plantarum ATCC 8014	50-100	good-luxuriant	>=50%
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	>=10^4	inhibited	0%

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container 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

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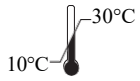
IVD ***In vitro*** **diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
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www.cepartner4u.eu

CE Marking

Do not use if package is damaged

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