

# **ROGOSA AGAR**

Selective basal medium for lactobacilli isolation and enumeration.

TYPICAL FORMULA	(g/l)
Tryptone	10.0
Yeast Extract	5.0
Glucose	10.0
Arabinose	5.0
Saccharose	5.0
Sodium Acetate	15.0
Ammonium Citrate	2.0
Monopotassium Phosphate	6.0
Magnesium Sulfate	0.57
Manganese Sulfate	0.12
Ferrous Sulfate	0.03
Agar	15.0
Final pH = $5.4 \pm 0.2$ at 25 °C.	

### DIRECTIONS

Suspend 73.7 g of powder in 1 liter of distilled or deionized water. Add 1 ml of Tween 80 supplement (code 80031) and 1,32 ml of glacial acetic acid. Heat until completely dissolved. Boil for 2-3 minutes. Cool to 45-50°C. Dispense in petri dishes. Do not sterilize in autoclave and do not overheat.

### DESCRIPTION

ROGOSA AGAR is a selective basal medium for isolating, cultivating and enumerating oral, vaginal, and fecal lactobacilli. The low pH and the high sodium acetate concentration effectively suppress other bacterial flora and allow the lactobacilli to flourish.

### TECHNIQUE

Spread with a sterile spatulum the material to examine on the surface of the solidified medium. Incubate at  $36 \pm 1^{\circ}$  C for 40-48 hours. It is preferable to incubate in an atmosphere containing 95% of hydrogen and 5% carbon dioxide: this prevents evaporation, provides micro-aerophilic conditions favoured by lactobacilli and carbon dioxide has a stimulating effect on their growth. If a suitable container is not available, overlay the inoculated plates with a second layer of Rogosa Agar before incubation. Thermophilic lactobacilli are to be incubated at 42 °C for 48 hours, psychrotrophic organisms are to be incubated at 30 °C for 2 days and at 22 °C for a further day, Leuconostocs from meat are incubated at 25 °C for 3 days.

### QUALITY CONTROL

<u>Dehydrated medium</u> Appearance: homogeneous with soft clumps. Colour: beige. <u>Prepared medium</u> Appearance: slightly opalescent, may have slight precipitates. Colour: light amber. Incubation conditions:  $36 \pm 1^{\circ}$ C for 40-48 hours.

Microorganism	ATCC	Growth
Lactobacillus casei	9595	good
Lactobacillus delbrueckii	4797	good
Staphylococcus aureus	25923	markedly to completely inhibited



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# PERFORMANCE AND LIMITATIONS

Since the nutritional requirements of organisms are different, some strains may be encountered that fail to grow or grow poorly on this medium. The medium is slightly acid and positive reactions may be slower than with phenol red carbohydrate medium. The salt in the formulation makes the media not suitable for isolation of dairy lactobacilli, e.g. *L. lactis, L. bulgaricus, L. Helveticus.* 

## 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.

### REFERENCES

- 1. Rogosa, M., J.A. Mitchell, and R.F. Wiseman, (1971) J. Bacteriol. 62:132.
- 2. Rogosa, M., J.A. Mitchell, and R.F. Wiseman, (1951). J. Dental Res. 30:682.
- 3. ISO/TC34/SC6/WG15. (1984). Enumeration of Lactobacteriaceae in meat and meat products.
- 4. Sharpe M.E. (1960) Lab. Practice 9: 223-227.

# PRESENTATION

Product	REF	Σ				
ROGOSA AGAR (6.7 I)	610176	500 g				
ROGOSA AGAR (1.3 I)	620176	100 g				
TWEEN 80 supplement	80031	2 x 50 ml				

# TABLE OF SYMBOLS

LOT Batch code	Caution, consult accompanying documents	Manufacturer	Contains sufficient for <n> tests</n>	IVD In Vitro Diagnostic Medical Device
REF Catalogue number	Fragile, handle with care	Use by	Temperature limitation	Keep away from heat source



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