

83920 Rogosa Agar (Lactobacillus Selective Agar, LBS Agar)

Selective agar for the isolation and enumeration of lactobacilli belonging to the buccal and intestinal flora, as well as from food such as milk and meat.

Composition:

Ingredients	Grams/Litre
Casein peptone	10.0
Yeast extract	5.0
D(+)-Glucose	20.0
Potassium dihydrogen phosphate	6.0
Ammonium citrate	2.0
Sodium acetate	15.0
Magnesium sulfate	0.575
Ferrous sulfate	0.034
Manganous sulfate	0.12
Agar	15.0

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:

73 g are added to 1 litre distilled water and brought to the boil to dissolve. 10 ml sterile 10% Tween 80 solution is added. The medium is adjusted to pH 5.5 with 1.32 ml glacial acetic acid. Fill into aseptic containers. Do NOT autoclave.

Principle and Interpretation:

Casein peptone and yeast extract act as sources of carbon, nitrogen, minerals, vitamins and other essential growth nutrients. Tween® 80 provides fatty acids required for the metabolism of Lactobacilli. The growth of most bacteria like Streptococci and moulds are inhibited by ammonium citrate and sodium acetate. Swarming is restricted due to these products. Potassium dihydrogen phosphate buffers the medium. Magnesium sulfate, ferrous sulfate and manganous sulfate are sources of inorganic ions and ensure the optimal growth of Lactobacilli. In this medium the pH is set to inhibit most microorganisms, but these are the best conditions for Lactobacilli.

Cultural characteristics after 2-3 days at 35-37°C.

Organisms (ATCC)	Growth
<i>Lactobacillus acidophilus</i> (4356)	+++
<i>Lactobacillus plantarium</i> (8014)	+++
<i>Lactobacillus casei</i> (9595)	+++
<i>Bifidobacteria bifidum</i> (11863)	+++ (anaerobic)
<i>Enterococcus faecalis</i> (29212)	-
<i>Proteus vulgaris</i> (13315)	-



References:

1. M.E. Sharpe, Selective media for the isolation and enumeration of lactobacilli, Lab. Pract. 9, 223 (1960)
2. T. Mitsuoka, Vergleichende Untersuchungen über Lactobazillen aus den Faeces von Menschen, Schweinen und Hühnern, Zbl. Bakt. I. Orig., 210, 32 (1969)
3. M. Rogosa J.A. Mitchel, R.F. Wiseman, A selective medium for the isolation of oral und faecal lactobacilli, J. Bact. 62, 132 (1951)
4. M. Rogosa, R.F. Wiseman, J. Dental Res., 30, 682 (1951)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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