

Lactobacillus Selective Agar Base (NCM0275)

Intended Use

Lactobacillus Selective Agar Base is used for the isolation and enumeration of lactobacilli in a laboratory setting. Lactobacillus Selective Agar Base is not intended for use in the diagnosis of disease or other conditions in humans.

Description

Lactobacillus Selective Agar Base was developed by Rogosa, Mitchell, and Wiseman. This medium is used for isolation, enumeration, and identification of lactobacilli in foods. The low pH and high acetate concentrations effectively suppress other bacterial flora allowing lactobacilli to flourish.

Typical Formulation

Enzymatic Digest of Casein	10.0 g/L
Yeast Extract	5.0 g/L
Monopotassium Phosphate	6.0 g/L
Ammonium Citrate	2.0 g/L
Dextrose	20.0 g/L
Sodium Acetate	25.0 g/L
Magnesium Sulfate	0.575 g/L
Manganese Sulfate	0.12 g/L
Ferrous Sulfate	0.034 g/L
Polysorbate 80	1.0 g/L
Agar	15.0 g/L

Final pH: 5.5 ± 0.2 at 25°C

Formula may be adjusted and/or supplemented as required to meet performance specifications.

Supplement

Glacial Acetic Acid, 1.32 mL

Precaution

Refer to SDS

Preparation

1. Suspend 84 g of the medium in one liter of purified water. Mix thoroughly.
2. Add 1.32 mL of glacial acetic acid.
3. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
4. Avoid overheating. DO NOT AUTOCLAVE.

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free flowing, and beige.

Prepared Appearance: Prepared medium is trace to slightly hazy and light beige to amber.

Expected Cultural Response: Cultural response on Lactobacillus Selective Agar Base incubated aerobically at 35 ± 2°C and examined for growth after 48 - 96 hours.

Technical Specification Sheet



Microorganism	Approx. Inoculum (CFU)	Expected Results
<i>Escherichia coli</i> ATCC® 25922	1000	Completely Inhibited
<i>Lactobacillus casei</i> ATCC® 393	10 - 300	Growth
<i>Lactobacillus fermentum</i> ATCC® 9338	10 - 300	Growth
<i>Lactobacillus plantarum</i> ATCC® 8014	10 - 300	Growth
<i>Staphylococcus aureus</i> ATCC® 25923	1000	Completely Inhibited

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure

Refer to appropriate references for specific procedures.

Results

Refer to appropriate references and procedures for results.

Expiration

Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedure

1. Due to varying nutritional requirements, some strains may be encountered that grow poorly or fail to grow on this medium.
2. Organisms other than lactobacilli may grow on this medium. Isolates must be confirmed by appropriate biochemical tests.

Storage

Store dehydrated culture media at 2-8°C away from direct sunlight. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

References

- 1 Rogosa, M., J. A. Mitchell, and R. F. Wiseman. 1951. A selective medium for the isolation and enumeration of oral and fecal lactobacilli. *J. Bacteriol.* 62:132.
- 2 Rogosa, M., J. A. Mitchell, and R. F. Wiseman. 1951. A selective medium for the isolation and enumeration of oral and fecal lactobacilli. *J. Dental Res.* 30:682.
- 3 Vedamuthu, E. R., M. Raccach, B. A. Glatz, E. W. Seitz, and M. S. Reddy. 1992. Acid-producing microorganisms. *In* C. Vanderzant, and D. F. Splittstoesser (eds.). *Compendium of methods for the microbiological examination of foods*, 4th ed. American Public Health Association, Washington, D.C.

