

LBS (Lactobacillus Selection) Agar



Medium used for the isolation and cultivation of Lactobacilli spp.

• CONTENTS (Liter)

Pancreatic Digest of Casein	10.0 g
Yeast Extract	5.0 g
Dextrose	20.0 g
Monopotassium Phosphate	6.0 g
Ammonium Citrate	2.0 g
Sodium Acetate Hydrate	25.0 g
Magnesium Sulfate	0.575 g
Manganese Sulfate	0.12 g
Ferrous Sulfate	0.034 g
Tween 80	1.0 g
Agar	15.0 g
Final pH = 5.5 ± 0.2 at 25°C	

• PROCEDURE

Suspend 84.73 G of powder in 1 L of distilled or deionized water. Add 1.32 mL of Glacial Acetic Acid supplement (MB-G0743). Mix well. DO NOT AUTOCLAVE. Heat to boiling until completely dissolved. Cool to 45 - 50°C in water bath. Mix well. Pour into petri dishes.

Glacial Acetic Acid supplement

1 vial contents

Glacial Acetic Acid 15.0 mL

• INTERPRETATION

LBS (Lactobacillus Selection) Agar is used for the isolation and cultivation of Lactobacilli spp. Pancreatic digest of casein, yeast extract provide nitrogen, carbon, amino acids, and vitamins. Dextrose is the carbohydrate. Monopotassium phosphate is the buffering agent. Ammonium citrate and sodium acetate hydrate inhibit the growth of many organisms. Magnesium sulfate, manganese sulfate and ferrous sulfate provide essential ions for the growth of microorganisms. Tween 80 is a source of growth factors. Agar is the solidifying agent. Glacial acetic acid provides low pH of the medium for the inhibition of other bacterial flora and the isolation of Lactobacilli spp.

• TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 35 ± 2°C for 42 - 48 hours under microaerobic condition. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: slightly clumped and moist, homogeneous

Color: beige

Prepared medium

Appearance: opalescent with slight precipitates

Color: light amber

Incubation conditions: 35 ± 2°C / 42 - 48 hours under microaerobic condition

Microorganism	ATCC	Inoculum CFU	Growth
<i>Lactobacillus acidophilus</i>	4356	50-100	good
<i>Lactobacillus plantarum</i>	8014	50-100	good
<i>Proteus vulgaris</i>	13315	≥10 ³	inhibited
<i>Staphylococcus aureus</i>	25923	≥10 ³	inhibited
<i>Escherichia coli</i>	25922	≥10 ³	inhibited

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

• REFERENCES

1. Rogosa, Mitchell and Wiseman. 1951. J. Bacteriol. 62:132.
2. Rogosa, Mitchell and Wiseman. 1951. J. Dental Res. 30:682.
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4. Ellis and Sarles. 1958. J. Bacteriol. 75:272.
5. Rogosa and Sharpe. 1960. J. Gen. Microbiol. 23:197.
6. Downes and Ito (ed.). 2001. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.
7. Marshall (ed.). 1993. Standard methods for the examination of dairy products, 16th ed. American Public Health Association, Washington, D.C.
8. Sabine and Vaselekos. 1965. Nature 206:960.
9. MacFaddin. 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol. 1. Williams & Wilkins, Baltimore, Md.

• PACKAGE

Cat. No : MB-L1555 LBS (Lactobacillus Selection) Agar	500 G
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