TM 1003 – LACTOBACILLUS SELECTION AGAR BASE

INTENDED USE
For isolation and enumeration of *Lactobacillus* from foods.

PRODUCT SUMMARY AND EXPLANATION
Lactobacillus Selection Agar is used for isolation and enumeration of Lactobacilli. Rogosa et al developed LBS Agar as a selective medium for isolation and enumeration of Lactobacilli from oral, faecal specimens, food and dairy products. Lactobacillus Selection Medium was demonstrated to be more suitable for growth of lactobacilli than Tomato Juice Medium traditionally used to isolate lactobacilli. Lactobacilli Selection Media can be further enriched by addition of tomato juice.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	10.000
Yeast extract	5.000
Dextrose (Glucose)	20.000
Sodium acetate	25.000
Potassium dihydrogen phosphate	6.000
Ammonium citrate	2.000
Polysorbate 80 (Tween 80)	1.000
Magnesium sulphate	0.575
Manganese sulphate	0.120
Ferrous sulphate	0.034
Agar	15.000

PRINCIPLE
This medium consists of Tryptone, yeast extract and dextrose which are the nitrogen and carbon sources. Polysorbate 80 provides fatty acids required for the metabolism of Lactobacilli. Selectivity of the medium is obtained due to the presence of ammonium citrate and sodium acetate. These inhibit the accompanying microbial and fungal flora and also restrict swarming of colonies. Addition of acetic acid lowers the pH which is inhibitory to many microorganisms but favours the growth of Lactobacilli. *Lactobacillus* on this medium appears as large, white colonies.

INSTRUCTION FOR USE
- Dissolve 84.73 grams in 1000 ml purified/distilled water containing 1.32 ml glacial acetic acid. Heat with frequent stirring.
- Heat to boiling for 1-2 minutes to dissolve the medium completely.DO NOT AUTOCLAVE.
- If storage is necessary, autoclave at 12 psi pressure for 15 minutes. Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 5.5 ± 0.2

INTERPRETATION

Cultural characteristics observed in presence of 3-5% Carbon dioxide (CO_2) after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Enterococcus faecalis	29212	>=10^3	Inhibited	0%	35-37°C	48 Hours
Lactobacillus acidophilus	4356	50-100	Luxuriant	>=70%	35-37°C	48 Hours
Lactobacillus casei	9595	50-100	Luxuriant	>=70%	35-37°C	48 Hours
Lactobacillus plantarum	8014	50-100	Luxuriant	>=70%	35-37°C	48 Hours
Proteus vulgaris	13315	>=10^3	Inhibited	0%	35-37°C	48 Hours
Staphylococcus aureus subsp. aureus	25923	>=10^3	Inhibited	0%	35-37°C	48 Hours
Escherichia coli	25922	>=10^3	Inhibited	0%	35-37°C	48 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

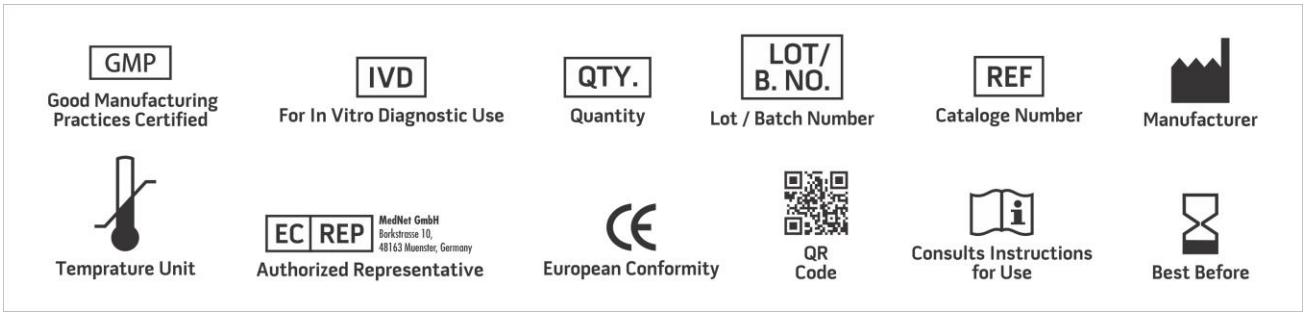
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Ellis and Sarles, 1958, J. Bacteriol., 75:272.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
5. Richardson (Ed.), 1985, Standard Methods for the Examination of Dairy Products, 15th ed., APHA, Washington, D.C.
6. Rogosa, Mitchell and Wiseman, 1951, J. Bacteriol., 62:132.
7. Rogosa, Mitchell and Wiseman, 1951, J. Dental Res., 30:682.
8. Sabine D. B. and Vaselekos J., 1965, Nature, 206:960.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

Revision: 08 Nov., 2019