TM 1004 – LACTOBACILLUS SELECTION BROTH BASE

INTENDED USE

For selective isolation and enumeration of Lactobacilli from foods.

PRODUCT SUMMARY AND EXPLANATION

Lactobacilli grow in a variety of habitats, wherever high levels of soluble carbohydrate, protein background products, vitamins and a low oxygen tension occur. These sites include the oral cavity, the intestinal tract, the vagina, food products and dairy products. Lactobacillus Selection Broth Base, developed by Rogosa et al is recommended for the isolation and enumeration of lactobacilli. 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 hydrogen 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

PRINCIPLE

This medium consists of Tryptone and yeast extract which serve as sources of nitrogen, carbon and essential nutrients. Dextrose is the carbohydrate and energy source. Polysorbate 80 serves as an additional source of growth factors and fatty acids required for metabolism of *Lactobacillus* species. 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. The low acidic pH of the medium obtained by addition of glacial acetic acid is inhibitory to several bacterial species. Sulphates provide essential ions. Growth from Lactobacillus Selection Broth Base can be isolated on Lactobacillus Selection Veg Agar Base Since these media are highly selective, they should not be used for maintenance of lactobacilli.

INSTRUCTION FOR USE

- Dissolve 69.73 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.
- Dispense in sterile tubes or flasks as desired. If storage is necessary, autoclave at 12 psi pressure for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured clear solution in tubes.
pH (at 25°C) : 5.4 ± 0.2

INTERPRETATION

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

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

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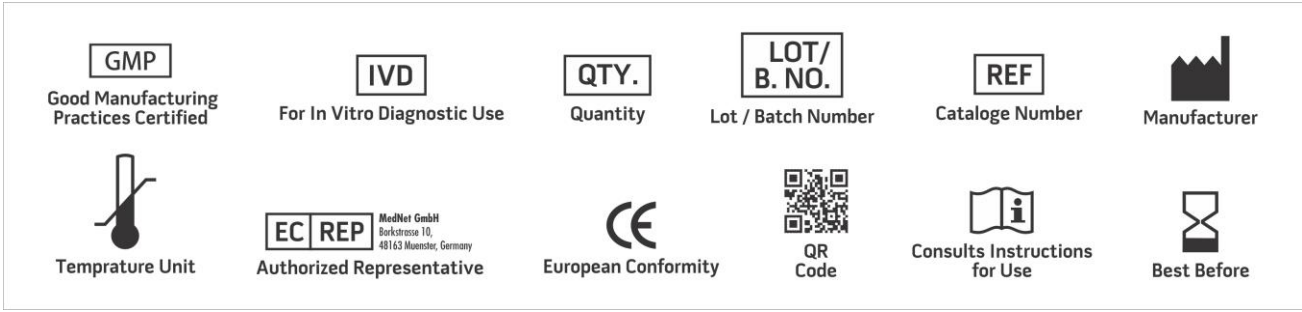

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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