TM 2216 - MRS BROTH W/LOW pH

INTENDED USE
For cultivation of all *Lactobacillus* species from all types of material.

PRODUCT SUMMARY AND EXPLANATION
The media formulation is based on the formulation of deMan, Rogosa and Sharpe with slight modification. It supports luxuriant growth of all Lactobacilli from dairy products, foods and other sources.

COMPOSITION

Ingredients	Gms / Ltr
Meat peptone	10.000
Beef extract	10.000
Yeast extract	5.000
Diammonium hydrogen citrate	2.000
Dipotassium hydrogen phosphate	2.000
Dextrose (Glucose)	20.000
Magnesium sulphate heptahydrate	0.200
Manganese sulphate tetrahydrate	0.050
Sodium acetate trihydrate	5.000

PRINCIPLE
Meat peptone and Beef extract supply nitrogenous and carbonaceous compounds. Yeast extract provides vitamin B complex and dextrose is the fermentable carbohydrate and energy source. Sodium acetate and ammonium citrate inhibit Streptococci, moulds and many other microorganisms. Glucose serves as carbohydrate source. Phosphates buffers the medium. Magnesium sulphate and manganese sulphate provide ions used in metabolism.

INSTRUCTION FOR USE
- Dissolve 52.05 grams in 1000 ml purified/distilled water.
- Heat if necessary to boiling to dissolve the medium completely.
- Distribute in tubes, bottles or flasks as desired. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Cream to light yellow homogeneous free flowing powder

Appearance of prepared medium : Medium amber coloured, clear to slightly opalescent solution in tubes

pH (at 25°C) : 5.4±0.2

INTERPRETATION
Cultural characteristics observed after an incubation or longer (with 5% CO2).

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Lactobacillus casei	*9595*	50-100	luxuriant	>=70 %	35-37°C	18-24 Hours
Lactobacillus fermentum	*9338*	50-100	luxuriant	>=70 %	35-37°C	18-24 Hours

Lactobacillus leichmannii	*7830*	50-100	luxuriant	>=70 %	35-37°C	18-24 Hours
Lactobacillus plantarum	*8014*	50-100	luxuriant	>=70 %	35-37°C	18-24 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. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
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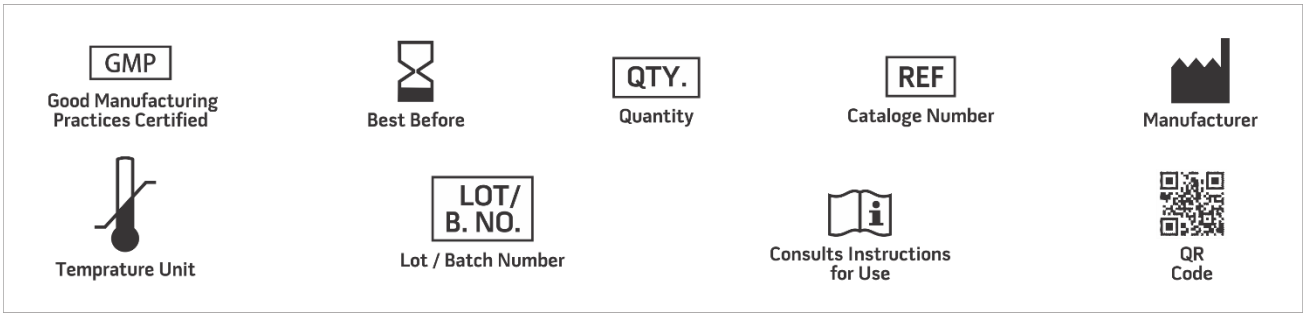
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
5. MacFaddin J.,1985, Media for Isolation-Cultivation-Identification -Maintenance of Medical Bacteria, Vol.1, Williams and Wilkins, Baltimore.
6. Marshall R.T. (Ed.), 1992, Standard Methods for the Examination of Dairy Products, 16th ed., APHA, Washington, D.C.
7. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
8. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
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