

MRS Broth ISO 15214

Medium for the cultivation of lactobacilli from clinical and non clinical specimens.

TYPICAL FORMULA	(g/l)
Peptospecial	10.0
Beef Extract	10.0
Yeast Extract	5.0
Glucose	20.0
Triammonium Citrate	2.0
Sodium Acetate	5.0
Magnesium Sulfate	0.2
Manganese Sulfate	0.05
Dipotassium Phosphate	2.0
Final pH 6.2 ± 0.2 at 25°C	

DESCRIPTION

MRS Broth ISO 15214 is a non-selective medium for profuse growth of lactobacilli. It can be used for preparing inocula in microbiological assays.

This medium complies with ISO/DIS 15214 for the inspection of foods.

PRINCIPLE

Peptospecial and beef extract provide nitrogen, carbon, amino acids, vitamins and minerals for organisms growth. Yeast extract is a source of vitamins, particularly of B-group. Glucose is the fermentable carbohydrate. Ammonium citrate, at a low pH, inhibits most microorganisms, but allows the growth of lactobacilli. Sodium acetate and dipotassium phosphate are buffer agents to maintain a low pH. Magnesium and manganese sulfates are sources of ions and sulfate.

PREPARATION

Suspend 54.3 g of powder in 1 liter of distilled or deionized water and add 1 ml of Tween 80 (ref. 80031). Heat to boiling and mix until completely dissolved. Adjust the pH so that after sterilization it is 5.7 ± 0.1 at 25 °C. Distribute into final containers and sterilize in autoclave at 121 °C for 15 minutes.

TECHNIQUE

Inoculate and incubate at 30°C for 72 ± 3 h.

If lactobacilli other than mesophilic have to be cultivated, incubate as described below:

- For thermophilic lactobacilli, 48 h at 42°C;
- For psychrophilic lactobacilli, 5 days at 25°C;
- For both mesophilic and psychrophilic lactobacilli, 48 h at 30°C and then for further 48 h at 22°C.

INTERPRETATION OF RESULTS

Turbidity indicates microbial growth.

STORAGE AND TRANSPORT CONDITIONS

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for professional use only and must be used by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

REFERENCES

- Briggs, M. (1953). J. Dairy Res. 20:36.
- Cox, G.P., and M. Briggs (1954). J. App. Bact. 17:18.
- De Man, J.C., M. Rogosa, and M.E. Sharpe (1960). J. App. Bact. 23:130- 135.
- ISO/FDIS 15214 (1998) Microbiology of food and animal feeding stuffs- Horizontal method for the enumeration of mesophilic lactic acid bacteria colony count technique.

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PRODUCT SPECIFICATIONS

NAME

MRS Broth ISO 15214

PRESENTATION

Dehydrated medium

STORAGE

10-30°C

PACKAGING

Ref.	Content	Packaging
610025	500 g	500 g of powder in plastic bottle
620025	100 g	100 g of powder in plastic bottle

pH OF THE MEDIUM

6.2 ± 0.2

USE

MRS Broth ISO 15214 is a liquid medium used for the cultivation of lactobacilli from clinical and non clinical specimens

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Powder medium

Appearance: free-flowing, homogeneous

Colour: beige

Ready-to-use medium

Appearance: clear

Colour: light amber

SHELF LIFE

4 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control
 Inoculum for productivity: ≤100 CFU
 Incubation Conditions: 72 h at 30 ± 2°C

Microorganism

Lactobacillus fermentum

ATCC® 9338

Growth

Good

Lactobacillus gassari

ATCC® 19992








Good

Staphylococcus aureus

ATCC® 25923

Inhibited

TABLE OF SYMBOLS

LOT	Batch code	IVD	<i>In vitro</i> Diagnostic Medical Device		Manufacturer		Use by		Fragile, handle with care
REF	Catalogue number		Temperature limitation		Contains sufficient for <n> tests		Caution, consult instructions for use		Do not reuse

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