

M.R.S. BROTH

IVD in Class A, EU Reg. 2017/746

 For in vitro diagnostic use **IVD**

Recommended for use in the isolation, enumeration and cultivation of Lactobacillus species.

DESCRIPTION

MRS Broth is based on the formulations of deMan, Rogosa and Sharpe. This medium was shown by the authors to support luxuriant growth of all lactobacilli from oral, fecal, dairy and other sources.

PRINCIPLE

MRS Broth contains peptone and dextrose. These ingredients supply nitrogen, carbon and other elements necessary for growth. Polysorbate 80, acetate, magnesium and manganese provide growth factors for culturing a variety of lactobacilli. The above ingredients may inhibit the growth of some organisms other than lactobacilli.

COMPOSITION	g/L
Proteose Peptone No. 3	10.0
Beef Extract	10.0
Yeast Extract	5.0
Dextrose	20.0
Polysorbate 80 (*)	1.0
Ammonium Citrate	2.0
Sodium Acetate	5.0
Magnesium Sulfate	0.2
Manganese Sulfate	0.05
Dipotassium Phosphate	2.0

Final pH 6,4 ± 0,2 at 25°C

WARNING AND PRECAUTIONS

For in vitro diagnostic use.

Observe the precautions normally taken when handling laboratory reagents.

Dehydrated medium: HIGHLY HYGROSCOPIC. During the handling, wear dust protection mask. Avoid the eye contact. Do not use beyond the expiration date or if the product shows signs of deterioration, an altered color or has compacted.

Prepared Medium: The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous.

Safety Data Sheet is available on request for professional users.

All waste must be disposed of according to local directives.

STORAGE AND STABILITY

Dehydrated medium:	10-30°C
Prepared medium:	10-25°C

The product is stable until the expiration date indicated on the label under the recommended storage conditions.

PREPARATION

Dehydrated medium: Suspend 55.2 g of the powder in 1 liter of distilled or deionized water. Mix well. Heat to boil shaking frequently until completely dissolved. Add 1 mL of Tween 80 (*Solution included in the package). Sterilize in autoclave at 121°C for 15 minutes.

PROCEDURE

1. Samples can be inoculated directly into MRS Broth.
2. Incubate broth tubes at 35°C for 3 days, or at 30°C for 5 days, in an aerobic atmosphere.
3. Subculture growth in broth tubes to appropriate solid media.

RESULTS

Lactobacilli appear as turbidity in MRS Broth.

QUALITY CONTROL

Dehydrated medium: Light tan, free-flowing, homogeneous.

Prepared medium: Medium amber, very slightly to slightly opalescent.

Typical response after incubation at 35±2°C for 18-24 hours:

MICROORGANISM	GROWTH
Lactobacillus delbrueckii subsp. lactis ATCC 7830	Good
Lactobacillus fermentum ATCC 9338	Good
Lactobacillus johnsonii ATCC 11506	Good

REFERENCES

1. deMan, Rogosa and Sharpe. 1960. J. Appl. Bacteriol. 23:130.
2. Murray, Baron, Jorgensen, Landry and Pfaller (ed.). 2007. Manual of clinical microbiology, 9th ed. American Society for Microbiology, Washington, D.C.
3. Downes and Ito(ed.). 2001. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.

PRESENTATION	Packaging	REF.
Dehydrated medium: M.R.S. BROTH	100 G	11205
	500 g (9.9 L)	10205
Prepared medium: M.R.S. BROTH	12 x 200 mL bottles	70062
	20 x 10 mL Tubes	5057/20P

SYMBOLS

	Read the instructions		Biological hazard
	CE Mark (product complies with the requirements of Regulation (EU) 746/2017)		Use by
	Temperature limitation		Manufacturer
	For in vitro diagnostic use		