

MRS Broth

Catalog: HB9237

MRS Broth is used for the selective enrichment of lactic acid bacteria in food.

Approximate Formula:

Ingredients	gm/liter	Ingredients	gm/liter
Peptic Digest of Animal Tissue	10.0	Hydrogen diammonium citrate	2.0
Beef extract	8.0	Sodium acetate	5.0
Yeast extract	4.0	Magnesium sulfate	0.2
Glucose	20.0	Manganese sulfate	0.04
Dipotassium hydrogen phosphate	2.0	Tween 80	1.0
Final pH5.7±0.2 at 25℃			

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 52.4g of the medium in one liter of deionized or distilled water. Heat to completely dissolved. Sterilize in an autoclave at 118℃ for 15 minutes.

Principle and Interpretation:

Peptic digest of animal tissue, beef extract, yeast extract provide nitrogen source, vitamins, growth factors; Glucose is the fermentable sugar; Dipotassium hydrogen phosphate is acid-base buffer; Triammonium citrate, magnesium sulfate, manganese sulfate, tween-80 and sodium acetate provide growth factors for the culture of various lactic acid bacteria, and their components can also inhibit some miscellaneous bacteria and neutralize cytotoxic substances, providing a good growth environment for lactic acid bacteria.

Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of yellowish transparent liquid.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

MRS Broth must be stored tightly capped in the original container at 5-30℃. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8℃.

Quality control:

Prepare the medium per label directions. Inoculate and incubate at 36±1℃ for 48±2 hours.

Microorganism	Strains Number	Inoculum (CFU)	Remark
<i>Bulgarian subspecies of Lactobacillus deri</i>	CICC 6032	10-100	Turbid
<i>Streptococcus thermophilus</i>	CICC 6038	10-100	Turbid
<i>Bifidobacterium infantile (anaerobic culture)</i>	CICC 6069	10-100	Turbid
<i>Lactobacillus acidophilus</i>	CICC 6005	10-100	Turbid

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.