Y3377 Yeast Mannitol Broth

Yeast Mannitol Broth is used for the cultivation and enumeration of soil microorganisms like *Rhizobium* species.

Composition:

Ingredients	Grams/Litre
Yeast Extract	1.0
Mannitol	10.0
Dipotassium Phosphate	0.5
Magnesium Sulfate	0.2
Sodium Chloride	0.1
Calcium Carbonate	1.0
Final pH 6.8 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder in a dry place in tightly-sealed containers at 2-25°C.
Appearance: Yellow colored, homogenous, free flowing powder.
Color and Clarity: Whitish buff colored, opalescent solution forms in tubes.

Directions:
Suspend 12.8 g of Yeast Mannitol Broth in 1000 ml of distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes.

Principle and Interpretation:
This medium is used for the cultivation of the symbiotic nitrogen fixing organisms like *Rizobium* species.

Yeast extract serves as a source of amino acids, contain vitamin B complex and growth factors for Rizobia. It also poises oxidation – reduction potential of medium in the range favourable for Rizobia and serves as hydrogen donor in respiratory process (2). Mannitol is the fermentable sugar alcohol source. Calcium and magnesium provide cations essential for the growth of Rizobia.

Cultural characteristics after 5 days at 30°C.

Organisms (ATCC)	Growth
Rhizobium meliloti (9930)	+++
Rhizobium leguminosarum (10004)	+++

References:

1. Subba Rao, N.S., (1977). Soil Microorganisms and Plant Growth, 142.
2. Allen, E.K., et al., (1950). Bacteriol. Rev. 14, 273.
3. American Type Culture Collection, Manassas, Va., U.S.A

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.