

## Y3252 Yeast Mannitol Agar

Yeast Mannitol Agar is used for the cultivation, isolation 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
Agar	15.0
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.

Gelling: Firm

Color and Clarity: Whitish buff colored, opalescent gel forms in petri plates.

### Directions:

Suspend 27.8 g of Yeast Mannitol Agar 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
<i>Rhizobium meliloti</i> (9930)	+++
<i>Rhizobium leguminosarum</i> (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.

