

TM 385 – RHIZOBIUM MEDIUM

INTENDED USE

For cultivation and isolation of *Rhizobium* species.

PRODUCT SUMMARY AND EXPLANATION

Rhizobium Medium is used in the large scale production of legumes and in their isolation from root nodules. Rhizobium Medium is recommended for isolation and cultivation of mannitol-positive *Rhizobium* species. It is also useful for the maintenance of *Rhizobium* species by adding extra 1% mannitol to the medium as specified by the American Type Culture Collection.

COMPOSITION

Ingredients	Gms / Ltr
Mannitol	10.000
Dipotassium phosphate	0.500
Magnesium sulphate	0.200
Yeast extract	1.000
Sodium chloride	0.100
Agar	20.000

PRINCIPLE

The medium is well buffered for pH changes and osmotic changes by presence of phosphate and sodium chloride salts. Yeast extract provides nitrogenous nutrients. Mannitol is the energy source while magnesium sulphate provides essential ions.

INSTRUCTION FOR USE

- Dissolve 31.80 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and pour into sterile petri plates.

QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Cream to yellow homogeneous free flowing powder.
- Appearance of prepared medium** : Yellow coloured clear to slightly opalescent gel forms in Petri plates.
- pH (at 25°C)** : 6.8 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Rhizobium japonicum</i>	10324	50-100	Luxuriant	>=70%	25-30°C	Up to 4 Days
<i>Rhizobium meliloti</i>	9930	50-100	Luxuriant	>=70%	25-30°C	Up to 4 Days

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.










Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. ATCC Catalogue of Bacteria and Bacteriophages, 1992, 18th Ed., American Type Culture Collection, Rockville, MD.
2. Subba Rao N. S, Soil Microorganisms and Plant Growth- (Oxford and IBH Publishing Co.).

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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