TM 1877 – AZOTOBACTER AGAR (SUCROSE)

INTENDED USE
For isolation, cultivation and identification of sucrose positive *Azotobacter* species from soil.

PRODUCT SUMMARY AND EXPLANATION
Bacteria of the family *Azotobacteraceae* constitute the majority of heterotrophic free-living nitrogen fixing bacteria. *Azotobacter* is a genus of free-living diazotrophic bacteria which have the highest metabolic rate compared to any other microorganisms. Azotobacters have generated a good deal of interest in the scientific community because of their unique mode of metabolism, by which they can fix nitrogen aerobically. Azotobacter Agar (Sucrose) is used for isolation and cultivation of sucrose positive *Azotobacter* species from soil.

COMPOSITION

Ingredients	Gms / Ltr
Sucrose	20.000
Potassium dihydrogen phosphate	0.200
Ferric chloride	0.001
Dipotassium hydrogen phosphate	0.800
Yeast Extract	0.500
Magnesium sulphate.7H_2O	0.200
Calcium sulphate.2H_2O	0.100
Sodium molybdate. 2H_2O	0.001
Agar	15.000

PRINCIPLE
The medium contains sucrose and yeast extract which acts as a source of energy. The phosphate ions present buffers the medium. Other salts present helps in maintaining osmotic balance. Agar acts as a solidifying agent.

INSTRUCTION FOR USE
- Dissolve 36.67 grams (the equivalent weight of dehydrated medium per litre) in 1000 ml of purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50° C.
- If slight precipitate occurs after autoclaving distribute it evenly before pouring into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Off white to beige homogeneous free flowing powder.

Appearance of prepared medium : Yellow coloured, clear to slightly opalescent gel with a slight precipitate forms in Petri plates.

pH (at 25°C) : 7.2±0.2

INTERPRETATION
Cultural characteristics observed after incubation.

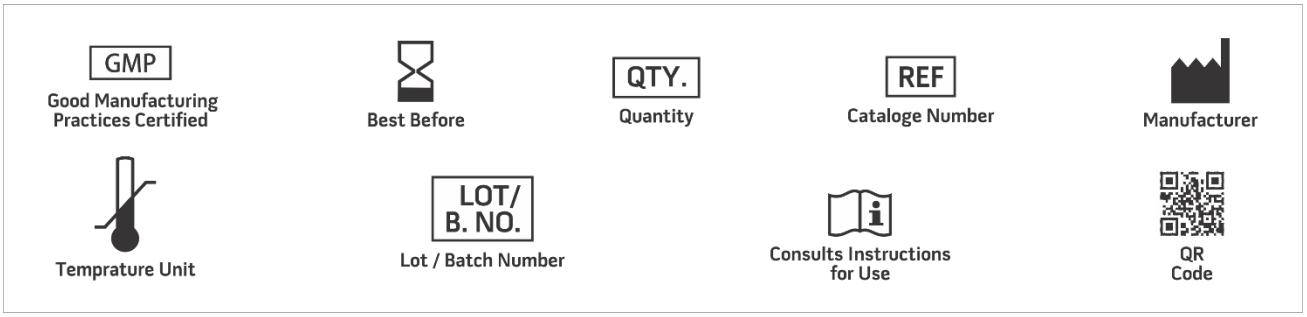
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Azotobacter beijerinckii	12981	50-100	Good-luxuriant	>=50%	25-30°C	24-48 Hours
Azotobacter nigricans	35009	50-100	Good-luxuriant	>=50%	25-30°C	24-48 Hours

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. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
2. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
3. Pelczar M. Jr., 1957, Manual of Microbiological Methods.
4. Subba Rao N. S., 1977, Soil Microorganisms and Plant Growth, Oxford and IBH Publishing Co., New Delhi.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
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