CM 20188 – AZOSPIRILLUM MEDIUM W/ 0.17% AGAR (DOUBLE PACK)

INTENDED USE

For cultivation of Azospirillum species.

PRODUCT SUMMARY AND EXPLANATION

Azospirillum species occurasfree-living in soilor in association with the roots of cereal crops, grasses and tuber plants. Azospirillum species are plant-associated diazotrophs of the alpha subclass of Proteobacteria. Azospirillum Medium with 0.17% Agar is used for cultivation of Azospirillum species.

COMPOSITION

Ingredients	Gms / Ltr
Part I	
Malic acid	5.000
Dipotassium hydrogen phosphate	0.500
Ferrous sulphate	0.500
Manganese sulphate	0.010
Magnesium sulphate	0.200
Sodium chloride	0.100
Bromo thymol blue	0.002
Sodium molybdate	0.002
Calcium chloride	0.020
Agar	1.750
Part II	
Potassium hydroxide	4.000

PRINCIPLE

Malicacid isused as the carbon source. Azospirillum species grow well in presence of Malic acid and are not overgrown by other nitrogen fixers. Dipotassium phosphate provides buffering effect and other inorganic salt ingredients provide necessary growth nutrients. Agar at 0.17% concentrations provides microaerophillic conditions necessary for nitrogen fixation by Azospirillum species.

INSTRUCTION FOR USE

Dissolve 8.08grams of dehydrated Part I in 950 ml 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 and aseptically add 4 grams of Potassium hydroxide (Part II) dissolved in 50 ml of sterile distilled water to obtain pH of 6.8±0.2

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Part I: Cream to yellow homogeneous free flowing powder Part II :White to cream pellets
Appearance of prepared medium	: Light yellow to pale green coloured clear to slightly opalescent solution.
pH (at 25°C)	: 6.8±0.2

INTERPRETATION

Culturalcharacteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Azospirillium brasiliensis	29710	50-100	Good-luxuriant	>=50%	30°C	8 Days

PACKAGING:

Inpacksizeof100 gm and 500 gm bottles.

STORAGE

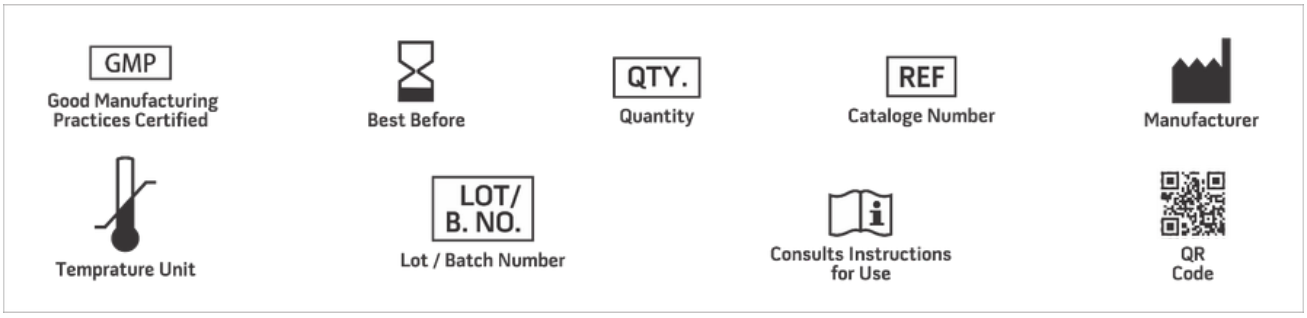
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided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

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

REFERENCES

1. Bergey's Manualof Determinative Bacteriology, 1994, 9th Ed, Williams R. H., (Eds.), Williams and Wilkins, Maryland, USA
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3.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.



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

*For LabUse Only