CM 20359 – C.T. AGAR

INTENDED USE
For cultivation of Myxobacteria species.

PRODUCT SUMMARY AND EXPLANATION
TheMyxobacteria (slime bacteria) are a group of bacteria that predominantly live in the soil. They produce a number of biomedically and industrially useful chemicals, such as antibiotics that are secreted extracellularly. They typically travel in swarms (also known as wolf packs), containing many cells kept together by intercellular molecular signals. This close concentration of cells may be necessary to provide a high concentration of extracellular enzymes used to digest food. C.T. Agar was originally described by Dworkin for accurate viable count of Myxobacteria. A distinctive feature of Myxobacteria is that when cells on the surface of a solid medium are deprived of specific nutrients, they shift from growth to development and begin to migrate, by means of gliding motility, into aggregation centers. C.T. Agar is used to maintain Myxobacteria to study their gliding motility. All Myxobacteria rely to a large extent on peptides and amino acids for nitrogen, carbon and energy.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	20.000
Magnesium sulphate heptahydrate	2.000
Potassium phosphate buffer (0.02M, pH 7.6)	0.725
Agar	20.000

PRINCIPLE
Tryptone provides the nutrients required for growth of Myxobacteria. The phosphate buffer helps to maintain pH of the medium. Due to this the culture can be maintained for a longer time on the Petri plates.

INSTRUCTION FOR USE
Dissolve 41.71 gramsin 1000 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.
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, opalescent gel forms in Petri plates.
pH (at 25°C) : 7.6±0.2

INTERPRETATION
Culturalcharacteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Myxococcus fulvus	23093	50-100	Good	40-50%	30-35°C	1-4 Weeks
Myxococcus xanthus	25232	50-100	Good	40-50%	30-35°C	1-4 Weeks

PACKAGING:

Inpacksizeof500 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.

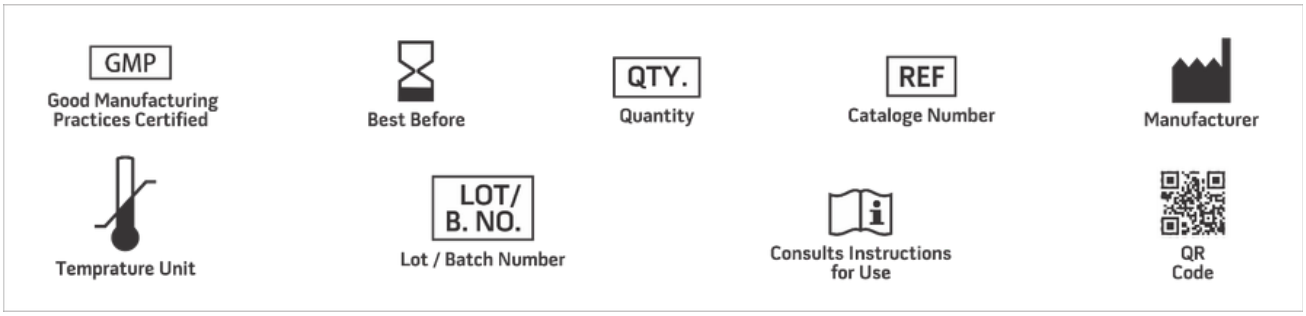
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Dworkin M., 1962, J. Bacteriol., 84: 250-257.
2. Dworkin M., 1963 J. Bacteriol., 86; 67-72.
3. Reichenback H., 2001, J. Ind. Microbiol. Biotechnol., 27 (3): 149.



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

*For LabUse Only