

Technical Information

C. T. Agar

Product Code: DM 2349

Application: - C. T. Agar is used for cultivation of *Myxobacteria* species.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	20.000
Magnesium sulphate. heptahydrate	2.000
Potassium phosphate buffer(0.02M, pH 7.6)	0.725
Agar	20.000
Final pH (at 25°C)	7.6±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

The *Myxobacteria* (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 (3). 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 supply a high concentration of extracellular enzymes used to digest food. C.T. Agar was originally described by Dworkin (1) 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 (2). C.T. Agar is recommended 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. Casein enzymic hydrolysate supplies 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.

Methodology

Suspend 41.71 grams of dehydrated media in 1000 ml distilled water. Mix thoroughly & heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Shake well and pour into sterile Petri plates.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 2.0% agar gel.

Colour and Clarity

Yellow coloured, opalescent gel forms in Petri plates

Reaction

Reaction of 4.27% w/v aqueous solution at 25°C. pH : 7.6±0.2

pH Range

7.40-7.80

Cultural Response

DM 2349: Cultural characteristics observed after an incubation at 30-35°C for 1-4 weeks.



Dehydrated Culture Media
Bases / Media Supplements

Organism	Growth
Cultural Response	
<i>Myxococcus fulvus</i> ATCC 23093	good
<i>Myxococcus xanthus</i> ATCC 25232	good

Storage and Shelf Life

Dried Media: Store below 10-30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry period on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

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

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at CDH is true and accurate
- Central Drug House Pvt. Ltd. reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents. Do not use the products if it fails to meet specifications for identity and performance parameters.

