

TM 2260 - NUTRIENT AGAR W/ TYROSINE

INTENDED USE

For cultivation and enumeration of Bacillus cereus in water and food in accordance with FDA BAM, 1998.

PRODUCT SUMMARY AND EXPLANATION

Bacillus cereus is an aerobic spore-forming bacterium that is commonly found in soil, on vegetables, and in many raw and processed foods. B. cereus food poisoning may occur when foods are prepared and held without adequate refrigeration for several hours before serving, with B. cereus. Foods incriminated in past outbreaks include cooked meat and vegetables, boiled or fried rice, vanilla sauce, custards, soups, and raw vegetable sprouts. Nutrient Agar w/ Tyrosine is used for cultivation and enumeration of Bacillus cereus in water and food in accordance with FDA BAM, 1998. The organism can be identified by its ability to hydrolyze tyrosine in the medium.

COMPOSITION

Ingredients	Gms / Ltr		
Peptone	5.000		
Beef extract	3.000		
Agar	15.000		
Tyrosine	5.000		

PRINCIPLE

The medium consists of Peptone and Beef extract that provide essential nutrients for the growth of the organism. Agar acts as the solidifying agent. Tyrosine is a source of amino acid which is hydrolyzed by Bacillus species.

INSTRUCTION FOR USE

- Dissolve 28.0 grams in 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.
- Mix well and dispense 3.5 ml into sterile tubes with frequent mixing. Keep in slanted position and cool rapidly to prevent separation of tyrosine.

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 slants(may shows

some white particles after solidification).

pH (at 25°C) : 6.8 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.











Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Tyrosine hydrolysis	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Good	Negative reaction, no clear zones	35-37°C	48 Hours upto 7 Days
Bacillus thuringiensis	10792	50-100	Good- luxuriant	Positive reaction, clearing of medium in and around the bacterial growth	35-37°C	48 Hours upto 7 Days
Bacillus cereus	10876	50-100	Good- luxuriant	Positive reaction, clearing of medium in and around the bacterial growth	35-37°C	48 Hours upto 7 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.

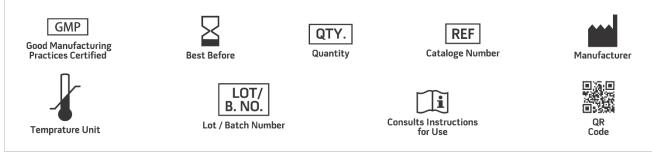
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

- 1. FDA, U.S. 1998. Bacteriological Analytical Manual. 8 ed. Gaithersburg, MD: AOAC International.
- 2. Larone. 1995. Medically important fungi: a guide to identification. 3 ed. Washington, D.C: ASM.
- 3. Murray, P. R., Baron, E. J., Jorgensen, J. H., Pfaller, M. A. and Yolken, R. H. 2003. Manual of Clinical Microbiology. 8 ed. Washington, D.C: ASM.



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

*For Lab Use Only
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