

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
<i>Escherichia coli</i>	25922	50-100	Good	Negative reaction, no clear zones	35-37°C	48 Hours upto 7 Days
<i>Bacillus thuringiensis</i>	10792	50-100	Good-luxuriant	Positive reaction, clearing of medium in and around the bacterial growth	35-37°C	48 Hours upto 7 Days
<i>Bacillus cereus</i>	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 Tenover, R. C. 2003. Manual of Clinical Microbiology. 8 ed. Washington, D.C: ASM.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

*For Lab Use Only
Revision: 08 Nov., 2019