

CM 20759 - GLUCOSE AGAR

INTENDED USE

For determining the fermentation reaction of presumptive Enterobacteriaceae.

PRODUCT SUMMARY AND EXPLANATION

Enterobacteriaceae are widely distributed and found in soil, water, vegetation and the intestinal tract of animals. Examination of foods, ingredients and raw materials, for the presence of marker groups such as coliforms or total Enterobacteriaceae, is one of the most common tests in food microbiology laboratory, because of the relative speed and ease with which the tests can be accomplished. Enterobacteriaceae are gram-negative chemoautotrophs that possess both respiratory and fermentative metabolism. Glucose Agar medium is used in the presumptive identification of Enterobacteriaceae based on the fermentation observed in the medium. This medium is also recommended by ISO as a solid medium for the confirmation of Enterobacteriaceae.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	10.000
Yeast extract	1.500
Glucose	10.000
Sodium chloride	5.000
Bromocresol purple	0.015
Agar	15.000

PRINCIPLE

The medium contains tryptone and yeast extract, which provides nitrogenous source and other essential growth factors. Sodium chloride maintains the osmotic balance of the medium. Glucose in the medium provides the energy source and when fermented produces acid. The production of acid is indicated by yellow colour, as the indicator bromocresol purple turns yellow under acidic conditions.

INSTRUCTION FOR USE

- Dissolve 41.52 grams in 1000 ml 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 pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder : Cream to yellow homogeneous free flowing powder.
- Appearance of prepared medium : Purple coloured, clear to slightly opalescent gel forms in Petri plates.
- pH (at 25°C) : 7.0±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the Medium	Incubation Temperature	Incubation Period
Enterobacter aerogenes	13048	50-100	Luxuriant	>=70%	Yellow	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	>=70%	Yellow	35-37°C	18-24 Hours
Pseudomonas aeruginosa	27853	50-100	Luxuriant	>=70%	Colourless	35-37°C	18-24 Hours

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.

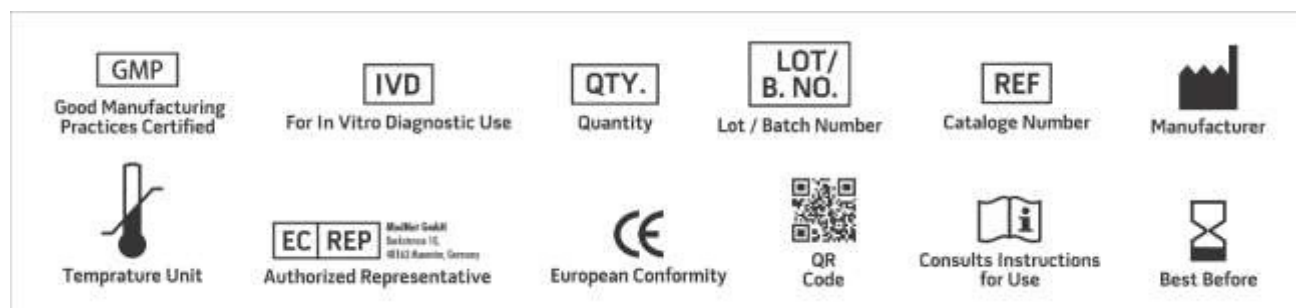
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Corry J. E. L., Curtis G. D. W. and Baird R. M., Culture Media for Food Microbiology, Vol. 34, Progress in Industrial Microbiology, 1995, Elsevier, Amsterdam.
2. ISO 4702 Standard, 1993, Microbiology General Guidance for The Enumeration of Enterobacteriaceae Without Resuscitation
3. ISO 8523 Standard, 1991, Microbiology General Guidance for The Detection of Enterobacteriaceae with Pre-enrichment.



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

*For Lab Use Only

