Glucose Agar

Intended Use
Glucose Agar is used for determining the fermentation reactions of presumptive *Enterobacteriaceae*.

Summary
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.*

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.

Formula*

Ingredients	**g/L**
Tryptone	10.0
Glucose	10.0
Sodium Chloride	5.0
Yeast Extract	1.5
Bromocresol Purple	0.015
Agar	15.0
Final pH (at 25°C)	7.0 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2ºC-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of Specimen
Food and Dairy samples

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure.
The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 41.52 g of the powder in 1000 mL purified / distilled water.
2. Mix thoroughly.
3. Heat gently with frequent agitation to dissolve the powder completely.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control

Dehydrated Appearance: Light yellow to greyish yellow coloured, homogenous free flowing powder.
Prepared Appearance: Light purple to purple coloured clear to slightly opalescent gel forms in petridishes.
Cultural response: Cultural characteristics observed after an incubation of 18-24 hours at 30°C-35°C.

Organism (ATCC)	Growth	Colour of colony
Escherichia coli (25922)	Good	Yellow
Escherichia coli (8739)	Good	Yellow
Klebsiella aerogenes (13048)	Good	Yellow
Pseudomonas aeruginosa Strain Boston 41501 (27853)	Good	Colourless
Pseudomonas aeruginosa (9027)	Good	Colourless

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

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.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201070050500	Dehydrated Culture Media	500 g