Glucose Broth

Intended Use
Glucose Broth is used for glucose fermentation studies, where pH indicator is not desired.

Summary
Waisbren, Carr and Dunnett used Glucose Broth for testing antibiotic sensitivity by the tube dilution method. This medium is also used to study glucose fermentation where pH indicator is not desired. Glucose Broth was developed to exclude the ingredients like beef extract that would contain small amount of carbohydrates. Thus, the glucose fermentation studies can be performed more accurately using only pure 0.5% glucose as the source of carbohydrate.

Principle
Tryptone and glucose serve as sources of essential nutrients and energy respectively to support the growth of many fastidious organisms. The tryptone used is free of carbohydrates and glucose acts as source of energy by being the only fermentable carbohydrate. The broth gives rapid growth and hastens the early development of injured cells. Sodium chloride maintains the osmotic equilibrium.

Formula*
Ingredients	**g/L**
Tryptone	10.0
Glucose	5.0
Sodium Chloride	5.0
Final pH (at 25°C)	7.3 ± 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
Pharmaceutical samples
Clinical 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 20.00 g of powder in 1000 mL purified / distilled water.
2. Mix thoroughly.
3. Boil with frequent agitation to dissolve the powder completely.
4. Dispense in tubes containing inverted Durham's tubes.
5. Sterilize by autoclaving at 118°C (12 psi) for 15 minutes as per validated cycle.

Quality Control

Dehydrated appearance: Light yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Light yellow coloured, clear solution without any precipitate.
Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP/IP and growth is observed after an incubation at 30°C-35°C for 18-24 hours.
Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤ 100 cfu of appropriate microorganism at 30°C-35°C for 18 hours.

Organism (ATCC)	Growth	Gas
Salmonella serotype *Typhi* (NTCC 786)	Good	-
Escherichia coli (25922)	Good	+
Escherichia coli (8739)	Good	+

Key:
For Gas (+) – Positive reaction (Bubble formation in Durham's tube)
For Gas (-) – Negative reaction (No Bubble formation in Durham's tube)

Performance and Evaluation

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

1. Directions
2. Storage
3. Expiry

Precautions/Limitations

The test sample should be held under moderate refrigeration (about 7 to 10°C) and should be analyzed as soon as possible, after collection as possible. This maximizes the survival and recovery of *Vibrios* and reduces the tendency for overgrowth by indigenous marine microflora.

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. Waisbren, Carr and Dunnett, 1951, Am. J. Clin. Path., 21:884.
2. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201070070100	Dehydrated Culture Media	100 g
201070070500	Dehydrated Culture Media	500 g
203070120005	Ready Prepared Tube	50 x 5 mL