OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

Regd Office: Unit no 12, 1st Floor,
Neminath Industrial Estate No.6,
Navghar, Vasai (East), Palghar - 410210.
Maharashtra, INDIA.

Tel: +91 250 2390032 / 2390989 / 2390990
Email: sales@oxfordlabchem.com /
info@oxfordlabchem.com
Web: www.oxfordlabchem.com

Oxford
Range of
Laboratory Chemicals

TECHNICAL DATA SHEET

Glucose OF Medium

Principle

Glucose OF Medium is used to study the oxidative and fermentative metabolism of carbohydrates by gramnegative bacteria. The media is composed of an enzymatic digest of casein, sodium chloride, dipotassium hydrogen phosphate, glucose, bromothymol blue, and agar. Enzymatic digest of casein promotes luxuriant growth of highly fastidious microorganisms and provides nitrogen and other necessary growth factors. Sodium chloride maintains osmotic balance. Phosphate buffers the medium. Glucose is a carbohydrate source. Broo thymol blue is a pH indicator. Less concentration of agar, which makes it very soft and allows the mobile bacteria to migrate. The inoculum is stabbed into the center of a semisolid agar using a sterile inoculating needle. Less concentration of agar determines the motility and helps in the even distribution of any acid produced at the surface of the medium.

Use: For the determination of oxidative and fermentative metabolism of carbohydrates by gram-negative bacteria.

Contents*

Ingredients	Gram/Litre
Enzymatic Digest of Casein	2.000
Sodium Chloride	5.000
Dipotassium Hydrogen Phosphate	0.300
Glucose	10.000
Bromo Thymol Blue	0.080
Agar	3.000
pH at 25˚C	6.8 ± 0.2

*** Formula adjusted for optimum performance and parameters**

Directions: Dissolve 20.38 grams in 1000 ml distilled water. Boil to dissolve the medium completely and distribute aseptically in test tubes. Sterilize by autoclaving at 15 lbs pressure (121 °C) for 15 min, cool it to 42-45 °C and allow to solidify to forms semi solid butt. Inoculate test sample aseptically.

Specimens' types analyzed

Food Samples, Meat and meat product.

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Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	**Light beige to greenish yellow, free flowing, homogeneous powder**
Reaction of 2.03% solution	**6.8 ± 0.2 at 25 ˚C**
pH	**6.60 – 7.00**
Gelling	**Semi solid comparable with 0.3% agar gel**
Color and clarity of ready medium	**Green colored clear to slightly opalescent gel**
Growth Promotion properties	**Best at ≤ 100 CFU at 32-37ºC for 18-72 hours**
Indicative properties	**Optimum at ≤ 100 CFU at 32-37ºC for 18-48 hours**
Negative control	**Performed using sterile distilled water**

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Different Microbial Response: Prepare media as per the label directions. Inoculate and incubate at 35±2°C for 18-48 hours. Inoculum 50-100 CFU.

Organism	ATCC	Aerobic incubation	Anaerobic incubation (overlayed with paraffin oil or mineral oil)
Escherichia coli	25922	Acidic reaction (yellow color of the medium), gas formation	Acidic reaction (yellow color of the medium), gas formation
Klebsiella aerogenes	13048	Acidic reaction (yellow color of the medium), gas formation	Acidic reaction (yellow color of the medium), gas formation
Pseudomonas aeruginosa	9027	Acidic reaction (yellow color of the medium), no gas formation	Alkaline reaction (green color of the medium) no gas formation
Salmonella enteritidis	13076	Acidic reaction (yellow color of the medium), gas formation	Acidic reaction (yellow color of the medium), gas formation
Shigella flexneri	9199	Acidic reaction (yellow color of the medium), no gas formation	Acidic reaction (yellow color of the medium), no gas formation

Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label.
Note: Sterilize media immediately after reconstitution.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

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Disclaimer:

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