

GLUCOSE BROTH

TM 737

For the cultivation of fastidious microorganisms and useful for detecting glucose utilization by the addition of a pH indicator

Composition

Ingredients	Gms/Ltr.
Casein enzymatic hydrolysate	10.00
Glucose	5.00
Sodium chloride	5.00

* Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight.

Instructions for Use

Dissolve 20gms in 1000ml distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (118°C) for 15 minutes. Dispense into test tubes containing inverted Durham’s tubes for detection of gas production.

Appearance: Light and faintly brown colour, clear solution

pH (at 25°C): 7.3 ± 0.2

Principle

GLUCOSE BROTH is used for the cultivation of fastidious microorganisms and useful for detecting glucose utilization by the addition of a pH indicator. Glucose Broth was developed to exclude the ingredients like beef extract that would contain small amount of carbohydrates. Casein enzymatic hydrolysate and Glucose is the energy source. Sodium chloride maintains osmotic balance in the medium. This broth is help in rapid growth and hastens the early development of injured cells.

Interpretation

Cultural characteristics observed after inoculating (10³CFU/ml), on incubation at 35°C for 24-48 hours.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth	Gas production
<i>Escherichia coli</i>	25922	10 ³	Good	Positive reaction
<i>Proteus mirabilis</i>	Clinical isolate	10 ³	Good	Positive reaction
<i>Staphylococcus aureus</i>	25923	10 ³	Good	Negative reaction
<i>Enterococcus faecalis</i>	IEE 552/82	10 ³	Good	Negative reaction

References

1. Waisbren, Carr and Dunnett, Am. J. Clin. Path., 21:884. (1951).