

# BCP Glucose Broth

Cat. 2009

For the differentiation of Enterobacteriaceae.

## Practical information

Applications	Categories
Differentiation	Enterobacteria

Industry: Water / Clinical / Food



## Principles and uses

BCP Glucose Broth is used for the differentiation of Enterobacteriaceae in urine, water and food. It differentiates species on the basis of dextrose fermentation.

Tryptone and yeast extract provide nitrogen, vitamins, minerals and amino acids essential for growth. Glucose is the fermentable carbohydrate providing carbon and energy. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Bromocresol purple is a pH indicator. Bacteriological agar is the solidifying agent.

Inoculate and incubate at  $35\pm 2$  °C for 18-24 hours. The glucose-fermenting microorganisms produce a change of the color of the medium to yellow colonies (acid) and the medium will maintain the purple color with the non-fermenting bacteria.

This medium can be used for glucose fermentation testing. Inoculate oxidase-negative colonies in tubes containing BCP Glucose Broth and incubate. A yellow color indicates a positive reaction. Microorganisms oxidase negative and glucose-positive are confirmed as Enterobacteriaceae.

## Formula in g/L

Glucose	10	Bromocresol purple	0,015
Sodium chloride	5	Tryptone	10
Yeast extract	1,5		

## Preparation

Suspend 26,5 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121 °C for 15 minutes.

## Instructions for use

Inoculate and incubate at a temperature of  $35\pm 2$  °C for 18-24 h.

## Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Purple	7,0±0,2

## Microbiological test

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Incubation conditions: (35±2 °C / 18-24 h).

Microorganisms	Specification	Characteristic reaction
Salmonella typhimurium ATCC 14028	Good growth	Acid production (color changes to yellow)
Escherichia coli ATCC 25922	Good growth	Acid production (color changes to yellow)
Staphylococcus aureus ATCC 25923	Good growth	No acid production

## Storage

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Temp. Min.:2 °C  
Temp. Max.:25 °C

## Bibliography

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ISO 21528:2 Microbiology of food and animal feeding stuffs- Horizontal methods for the detection and enumeration of Enterobacteriaceae Part 2: Colony-count method.  
Drigalsky, C. (1902) Über ein Verfahren zum Nachweis der typhusbacillen.