BCP Glucose Agar

Cat. 1320

For the differentiation and enumeration of Enterobacteriaceae

Practical information

Aplications	Categories
Selective enumeration	Enterobacteria
Selective isolation	Enterobacteria

Industry: Water / Clinical / Food

Principles and uses

BCP Glucose Agar 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. D-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.

Colonies that are oxidase negative and glucose-positive are confirmed as Enterobacteriaceae.

Formula in g/L

Bacteriological agar	15	Bromocresol purple	0,015
D-Glucose	10	Sodium chloride	5
Tryptone	10	Yeast extract	1,5

Preparation

Suspend 41.5 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 35 ± 2°C for 18 - 24 hours.

The glucose-fermenting microorganisms produce yellow colonies (acid) and the non-fermenting ones, purple colonies.

Quality control

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

Microbiological test

Incubation conditions: Escherichia coli, Salmonella Typhimurium (37ºC /24 ± 2 h) and Staphylococcus aureus, Pseudomonas aeruginosa (35 ± 2 °C/ 18-24 h)

Microrganisms	Specification	Characteristic reaction
Salmonella typhimurium ATCC 14028	Good growth	Acid production (Color change to yellow)
Escherichia coli ATCC 25922	Good growth	Acid production (Color change to yellow)

Staphylococcus aureus ATCC 25923	Good growth	Acid production (Color change to yellow)
Pseudomonas aeruginosa ATCC 27853	Good growth	No acid production (No color change to yellow)

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

ISO 21528:2 2004 Microbiology of food and animal feeding stoffs- Horizontal methods for the dectention and enumeration of Enterobacteriaceae Part 2: Colony-couny method

Drigalsky, C. (1902) Uber ein Verfahren zum Nachweis der typhusbacillen.