

Cat. 1258

Glucose Chloramphenicol Broth

Selective medium for the isolation and enumeration of yeasts and molds in milk and dairy products using the MPN technique

Practical information

Aplications Selective enumeration Selective isolation Categories Yeasts and molds Yeasts and molds

Industry: Dairy products

Principles and uses

Glucose Chloramphenicol Broth is recommended by the International Dairy Federation (FIL-IDF) for the isolation and enumeration of yeast and molds in milk and dairy products, using the most probable number (MPN) method.

Yeast extract is the water-soluble portion of hydrolyzed yeast and is a source of vitamins, particularly of the B-group, and other growth nutrients that stimulate yeast and mold development. Glucose is the fermentable carbohydrate as a carbon and energy source. Chloramphenicol is an antibiotic which aids in isolating pathogenic fungi from heavily contaminated material, as it inhibits most contaminating bacteria. It is a recommended antibiotic for use with media due to its heat stability and wide bacterial spectrum.

Formula in g/L

Glucose	20	Chloramphenicol	0,2
Yeast extract	5		

Preparation

Suspend 25.2 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 with a series of dilutions as per indicated in the MPN technique. Incubate at 25 - 30°C and examine after 3 - 7 days. Report as number of colonies per gram of food.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Beige	Light amber	6,6 ± 0,2

Microbiological test

Incubation conditions: (25-30 °C / 3-7 days)

Microrganisms	Specification
Aspergillus spp	Good growth
Candida albicans ATCC 2091	Good growth
Escherichia coli ATCC 25922	Inhibited growth
Staphylococcus aureus ATCC 25923	Inhibited growth
Lactobacillus rhamnosus ATCC 9595	Inhibited growth

Storage

Temp. Min.:2 °C Temp. Max.:25 °C

Bibliography

FIL-IDF(1991) Standard 94B. Enumeration of yeast and moulds. Colony Count Technique at 25°C. ISO (1981) ISO/DIS 6611: Milk and Milk products: Enumeration of yeast and moulds colony count technique at 25°C. DIN Standard 10186. Mikrobiologische Milchuntersuchung. Bestimmung der Anzahl von Hefen und Schimmelpilzen.