GLUCOSE CHLORAMPHENICOL BROTH

CAT Nº: 1258

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

FORMULA IN g/l

Glucose	20.00	Chloramphenicol	0.20
Yeast Extract	5.00		

Final pH 6.6 ± 0.2 at 25ºC

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. The prepared medium stored at 2-8°C. The color is light amber.

The dehydrated medium should be homogeneous, free-flowing and beige in color. If there are any physical changes, discard the medium.

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.

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.

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 25-30ºC and observed after 3-7 days.

Microorganisms	Growth
Escherichia coli ATCC 25922	Inhibited
Candida albicans ATCC 2091	Good
Staphylococcus aureus ATCC 25923	Inhibited
Aspergillus spp	Good
Lactobacillus casei ATCC 9595	Inhibited

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.

STORAGE

Once opened keep powdered medium closed to avoid hydration.