

TRYPTICASEIN GLUCOSE EXTRACT AGAR

CAT N°: 1041

For the plate count of bacteria in potable water, wastewater, air, milk and dairy products

FORMULA IN g/l

Caseine Peptone	5.00	D- Glucose	1.00
Beef Extract	3.00	Bacteriological Agar	15.00

Final pH 7.0 ± 0.2 at 25°C

PREPARATION

Suspend 24 grams of medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45-50°C, mix well and dispense into plates. The prepared medium should be stored at 8-15°C. The color is clear amber, slightly opalescent.

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

USES

TRYPTICASEIN GLUCOSE EXTRACT AGAR is used for the enumeration of bacteria from potable water, wastewater, air, milk and dairy products by the plate count method. This medium is recommended by APHA for the heterotrophic plate count procedure in testing bottled water.

Casein peptone and Beef extract provide nitrogen, vitamins, minerals and amino acids essential for growth. D-Glucose is a source of fermentable carbohydrate as the carbon and energy source. Bacteriological agar is the solidifying agent.

Inoculate plates by appropriate dilution samples. Follow the procedures of dilutions, plating and incubation in the current Standard Methods. Incubate at 35 ± 2°C for 18 - 24 hours. The recovery of microorganisms present in the sample is excellent.

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 35 ± 2°C and observed after 18 - 24 hours.

Microorganisms	Growth
<i>Staphylococcus aureus</i> ATCC 25923	Good
<i>Enterococcus faecalis</i> ATCC 11700	Good
<i>Escherichia coli</i> ATCC 25922	Good
<i>Salmonella typhimurium</i> ATCC 14028	Good
<i>Pseudomonas aeruginosa</i> ATCC 27853	Good (pigment production)
<i>Bacillus cereus</i> ATCC 11778	Good

BIBLIOGRAPHY

Standard Methods for the Examination of Water and Wastewater. 1 1th Edition APHA Inc. New York, 1960.

Standard Methods for the examination of dairy products, 1 6th ed. American Public Health Association; Washington D.C. Marshall, R.T. (1993).

Standard Methods for the examination of water and wastewater 1 8th ed. American Public Health Association, Washington D.C. 1992.

STORAGE

Once opened keep powdered medium closed to avoid hydration.

