

NUTRIENT BROTH

For the cultivation of non-fastidious microorganisms in water, feces and other materials

CAT Nº: 21216

FORMULA IN g/l

Gelatin Peptone 5.00 Beef Extract 3.00

Final pH 6.8 ± 0.2 at 25°C

PREPARATION

Suspend 8 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 should be stored at 2-8°C. The color is amber, slightly opalescent.

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

USES

NUTRIENT BROTH is used for the general cultivation of a wide variety of microorganisms.

A liquid medium, it is produced according to the formula from APHA and AOAC, and supports the growth of a great variety of microorganisms that are not very nutritionally demanding.

This medium is used in accordance with the official recommended procedures for the bacteriological analyses of water, milk, dairy products and faeces of clinical samples, and as a base to prepare media supplemented with other nutrients. Nutrient Broth is used in many laboratory procedures as it is or with added indicators, carbohydrates, organic liquids, salts, etc.

Gelatin peptone and Beef extract provide nitrogen, vitamins, minerals and amino acids essential for growth.

Inoculate medium with the test sample and incubate at 35 ± 2°C for 18 - 48 hours.

Bacteriological agar is the solidifying agent. The chromogenic mixture contains chromogenic substrates as Salmon-GAL and X-glucuronide. Coliform enzymes produced, such as galactosidase and glucuronidase, cleave these substrates, resulting in the different coloration of certain bacteria colonies.

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 - 48 hours.

Microorganisms	Growth
<i>Enterobacter aerogenes</i> ATCC 13048	Good
<i>Escherichia coli</i> ATCC 25922	Good
<i>Salmonella typhi</i> ATCC 6539	Good
<i>Staphylococcus epidermidis</i> ATCC 14990	Good
<i>Streptococcus pyogenes</i> ATCC 12344	Moderate

BIBLIOGRAPHY

Walsbren, Carr, and Dunnette A. J. Clin. Path. 21:884. 1951.
American Public Health Association. 1923. Standard methods of water analysis, 5th ed. American Public Health Association, Washington, D.C.

STORAGE

Once opened keep powdered medium closed to avoid hydration.

