

THIOGLYCOLLATE BROTH NIH & USP

CAT Nº: 1241

For sterility assays of biological and pharmaceutical products

FORMULA IN g/l

Caseine Peptone	15.00	Sodium chloride	2.50
Yeast Extract	5.00	Sodium Thioglycollate	0.50
Dextrose	5.00	L-Cystine	0.50

Final pH 7.1 ± 0.2 at 25°C

PREPARATION

Suspend 28.5 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. The medium does not contain agar or Resazurin and is preferable that it is freshly prepared, eliminating any dissolved oxygen before use by heating in boiling water or in a water bath. 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

THIOGLYCOLLATE BROTH (NIH & USP) is prepared according to the formula of the National Institute of Health (NIH) and the United States Pharmacopoeia (USP). Is used in detecting microorganisms in normally sterile materials, and is an alternative to certain products that are turbid or cannot readily culture because of the viscosity.

Casein peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is source of vitamins, particularly the B-group. Sodium thioglycollate and L-Cystine lower the oxidation-reduction potential by removing oxygen to maintain a low Eh. Dextrose is the carbohydrate energy source and allows for a rapid and vigorous growth. Sodium chloride supplies essential electrolytes for transport and osmotic balance.

Inoculate and incubate at 35 ± 2°C for 18 - 48 hours. Anaerobic conditions can also be used with this medium.

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>Bacillus subtilis</i> ATCC 6633	Good
<i>Candida albicans</i> ATCC 10231	Good
<i>Clostridium sporogenes</i> ATCC 19404	Good
<i>Streptococcus pyogenes</i> ATCC 19615	Good
<i>Bacteroides fragilis</i> ATCC 25285	Good
<i>Escherichia coli</i> ATCC 25922	Good

BIBLIOGRAPHY

U.S. Pharmacopoeia XVI, 1960



STORAGE

Once opened keep powdered medium closed to avoid hydration.

