



Todd Hewitt Broth

Medium for cultivation of streptococci and other fastidious organisms.

INTENDED PURPOSE

Todd Hewitt Broth is a liquid culture medium used for the cultivation of streptococci and other fastidious microorganisms.

DESCRIPTION

Todd Hewitt Broth is recommended for the cultivation of fastidious organisms, including beta-hemolytic streptococci and pneumococci.

TYPICAL FORMULA*

(g/l)

Tryptone	20.0
Heart Extract	10.0
Glucose	2.0
Sodium Chloride	2.0
Sodium Carbonate	2.0
Disodium Phosphate	0.4
Final pH 7.8 ± 0.2 at 25°C	

*Adjusted and/or supplemented as required to meet performance specifications.
Grams per liter of purified water

METHOD PRINCIPLE

Tryptone and heart extract provide amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Glucose is a carbon source and stimulates the hemolysin production. Sodium chloride maintains the osmotic balance of the medium. Sodium carbonate and disodium phosphate act as buffers to aid in neutralizing acid production from glucose fermentation and prevent hemolysin inactivation.

MATERIALS REQUIRED BUT NOT PROVIDED

Standard microbiological supplies and equipment such as: inoculating loops, sterile cotton swabs, physiological solution, incubator, quality control organisms.

TEST PROCEDURE

Inoculate the sample or material to be tested into the medium. Incubate at 35 ± 2°C for 2-5 hours in aerobic atmosphere with or without 5-10 % CO₂.

Incubation may be extended for up to 24 hours prior to subculture onto selective or non-selective blood agar plates.

INTERPRETING RESULTS

The presence of turbidity compared to uninoculated control, or a pellicle formation indicates microbial growth. Subculture to suitable solid media for complete identification of the isolated colonies.

STORAGE

Store at 10-25°C away from light. Do not use the product beyond its expiry date on the label or if product shows any evidence of contamination or any sign of deterioration.

SHELF LIFE

2 years.

QUALITY CONTROL

Appearance of medium: Clear to trace hazy, amber.

Expected Cultural Response:

Control strains	Incubation	Incubation	Specification
<i>Streptococcus pyogenes</i> ATCC® 19615	≤ 100 CFU	18-24 h / 35 ± 2 °C	Good growth
<i>Streptococcus pneumoniae</i> ATCC® 6305			
<i>Streptococcus agalactiae</i> ATCC® 13813			

Please refer to the actual batch related Certificate of Analysis (CoA).

PERFORMANCE CHARACTERISTICS

Performance testing of Todd Hewitt Broth was carried out using the QC strains listed above. The results obtained met the established criteria.

LIMITATIONS

Invalid results can be caused by poor sample quality, improper sample collection, improper transportation, improper laboratory processing, or a limitation of the testing technology. The operator should understand the principles of the procedures, including its performance limitations, in advance of operation to avoid potential mistakes.

Growth depends on the requirements of each individual microorganism. It is therefore possible that certain strains which have specific requirements (substrate, temperature, incubation conditions, etc.) may not develop.

WARNING AND PRECAUTIONS

For professional use only. Operators must be trained and have certain experience. Please read the instructions carefully before using this product. Reliability of assay results cannot be guaranteed if there are any deviations from the instructions in this document.

Consult the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to national and local regulations in force.

BIBLIOGRAPHY

See the references at the end of this document.

TABLE OF SYMBOLS

See the table of symbols at the end of this document.

ORDER INFORMATION

Product	Format	Packaging	Ref.
Todd Hewitt Broth	16x100mm Plastic Tube with screw cap and self-standing base	100 x 10 ml	26111P

Revision History

Revision	Release Date	Change Summary
0	2024-10-22	Document creation

This IFU document and the SDS are available from the online Support Center:

liofilchem.com/ifu-sds

References

1. Isenberg, H.D. (2004) Clinical Microbiology Procedures Handbook. 2nd ed. ASM Press, Washington, D.C.
2. Facklam, R.R., and J.A. Washington II (1991) Streptococcus and related catalase-negative gram-positive cocci, p. 238-257. In A. Balows, W.J. Hausler, Jr., K.L. Herrmann, H.D. Isenberg, and H.J. Shadomy (ed.), Manual of clinical microbiology, 5th ed. American Society for Microbiology, Washington, D.C.
3. Jones, G.L., G.A. Hebert and W.B. Cherry (1978) Fluorescent antibody techniques and bacterial applications, HEW Publication (CDC) No.78-364, Center for Disease Control, Atlanta.
4. Lennette, E.H., A. Balows, W.J. Hausler, Jr., and H.J. Shadomy (1985) Manual of Clinical Microbiology. 4th ed. ASM, Washington, D.C.
5. Todd, E.W., and Hewitt L.F. (1932). A new culture medium for the production of antigenic streptococcal haemolysin. J. Path. Bacteriol. 35: 973.

Table of Symbols

	Batch code
	Catalogue number
	Manufacturer
	Use by
	Fragile, handle with care
	Temperature limitation
	Contains sufficient for <n> tests
	Consult instructions for use
	Do not reuse
	Keep away from sunlight



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