

# PRODUCT INFORMATION

Product Type: Tubes

Cat No. TT326 - TODD HEWITT BROTH + COLISTIN + NAL (LIM BR)

## Intended Use:

Todd Hewitt Broth supplemented with Nalidixic Acid and Colistin Sulpomethate Sodium—often referred to as LIM Broth — is a selective enrichment medium designed for the optimal recovery of *Group B Streptococci (Streptococcus agalactiae)*, particularly from clinical specimens such as vaginal-rectal swabs. The supplementation with these antibiotics is intended to inhibit Gram-negative flora, thereby enhancing the selective isolation of streptococci

## Principles and uses:

**Todd Hewitt Broth Base:** Rich in nutrients (beef heart infusion, peptone or yeast extract, dextrose, sodium chloride, disodium phosphate, sodium bicarbonate/carbonate) for supporting the growth of streptococci.

**Colistin Sulphomethate Sodium (Colistin Sulfate):** Inhibits most Gram-negative rods, allowing Group B Streptococcus and other Gram-positive cocci to grow.

**Nalidixic Acid:** Further inhibits Gram-negative organisms through suppression of DNA replication.

The broth's selective properties maximize the recovery of *Streptococcus agalactiae* by suppressing interfering Gram-negative organisms commonly present in clinical specimens.

The CDC guidelines for prevention strategies recommend that all pregnant women should be screened at 35-37 weeks of gestation for ano-genital GBS (Group B Streptococcus - *Streptococcus agalactiae*) colonization.

The recommended method for the direct detection and identification of GBS from clinical specimens is the use of a selective broth followed by subculture on a selective or nonselective specific agar plate.

## References

1. Todd, E. W., and L. F. Hewitt. 1932. A new culture medium for the production of antigenic streptococcal haemolysin. J. Pathol. Bacteriol. 35:973.
2. Updyke, E. L., and M. I. Nickle. 1954. A dehydrated medium for the preparation of type specific extracts of group A streptococci. Appl. Microbiol. 2:117.
3. Moody, M. D., A. C. Siegel, B. Pittman, and C. C. Winter. 1963. Fluorescent-antibody identification of group A streptococci from throat swabs. Am. J. Public Health. 53:1083.
4. Facklam, R. R., and R. B. Carey. 1985. Streptococci and Aerococci, p. 154-175. In E. H. Lennette, A. Balows, W. J. Hausler, Jr., and H. J. Shadomy (eds.). Manual of clinical microbiology, 4th ed. American Society for Microbiology, Washington, D.C.
5. Bourbeau, P. P., B. J. Heiter, J. P. Anhalt, and D. W. Naumovitz. 1993. Comparison of direct specimen testing utilizing testpack strep A with testing of specimens following a two-hour broth enrichment. Diagn. Microbiol. Infect. Dis. 17:93-96.
6. MacFaddin, J. F. 1985. Media for isolation-cultivation-identification maintenance of medical bacteria, vol.1, p. 755-762. Williams & Wilkins, Baltimore, MD.
7. Isenberg, H. D. (ed.). 1992. Clinical microbiology procedures handbook, vol. 1, American Society for Microbiology, Washington, D.C.

**Composition:**

Heart Infusion (dehydrated) 3.1 g/L  
Yeast Enriched Peptone 20.0 g/L  
Dextrose 2.0 g/L  
Sodium Chloride 2.0 g/L  
Disodium Phosphate 0.4 g/L  
Sodium Carbonate 2.5 g/L  
Nalidixic Acid 15 mg/L  
Colistin Sulphomethate Sodium - 140,000 units/L

**Storage:** 2°-8°C

**Package contents:** 20 Tubes

**Appearance:** light amber

**pH Range:** 7.6 - 8.0

**Exp. Date:** Printed on label and on the item.

**Required materials not supplied:** Laboratory equipment as required.

**Warning and Precautions:**

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Tubes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Tubes may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.

**Waste Disposal**

After interpretation all items should be destroyed by standard incineration methods.

**Performance Testing Results:**

GPT: incoulum 10-100 cfu.

Inhibitory properties: inoculum 10000 cfu.

Test	ATCC NO	Incubation Temp. (°C)	Incubation Cond.	Reaction 1
<i>Streptococcus agalactiae</i>	27956	33-37 °C	Aerobic, 24 hours	Growth
<i>Streptococcus agalactiae</i>	WS. -1	33-37 °C	Aerobic, 24 hours	Growth
<i>Streptococcus pyogenes group A</i>	19615	33-37 °C	Aerobic, 24 hours	Growth
<i>Escherichia coli</i>	25922	33-37 °C	Aerobic, 24 hours	Partially inhibited
<i>Proteus mirabilis</i>	4630	33-37 °C	Aerobic, 24 hours	Partially inhibited