

***Salmonella enterica* subsp. *enterica*,  
Strain LT2****Catalog No. NR-174**

(Derived from ATCC® 700720™)

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**Product Description:**Bacteria Classification: *Enterobacteriaceae*, *Salmonella*Species: *Salmonella enterica*Subspecies: *Salmonella enterica* subsp. *enterica*<sup>1,2</sup>  
(formerly *Salmonella choleraesuis* subsp. *choleraesuis*)Type Strain: LT2 (SGSC 1412)Serovar: TyphimuriumComment: The complete genome for *Salmonella enterica* (*S. enterica*) subsp. *enterica*, strain LT2 has been sequenced (GenBank: AE006468).<sup>3</sup>

*S. enterica* are Gram-negative, rod-shaped, flagellated bacteria. Contaminated food and water are the main sources of infection, thus the greatest risk of disease occurs in developing countries with poor sanitation. The presence of several pathogenicity islands that encode a variety of virulence factors allows these organisms to colonize and infect host organisms. Additionally, *S. enterica* subsp. *enterica* serovar Typhimurium, strain LT2 is known to contain a plasmid, pSLT, that encodes supplementary virulence factors.<sup>3</sup> This organism causes a typhoid-like disease in mouse and gastroenteritis in humans.

**Material Provided:**

Each vial contains approximately 0.5 mL of bacterial culture in 0.5X Tryptic Soy Broth supplemented with 10% glycerol.

Note: If homogeneity is required for your intended use, please colony-purify prior to initiating work.

**Packaging/Storage:**

NR-174 was packaged aseptically, in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

**Growth Conditions:**Media:

Tryptic Soy Broth or equivalent

Tryptic Soy Agar or equivalent

Incubation:

Temperature: 37°C

Atmosphere: Aerobic

Propagation:

1. Keep vial frozen until ready for use, then thaw.
2. Transfer the entire thawed aliquot into a single tube of Tryptic Soy Broth.
3. Use several drops of the suspension to inoculate a Tryptic Soy Agar slant and/or plate.
4. Incubate the tubes and plate at 37°C for 24 hours.

**Citation:**

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: *Salmonella enterica* subsp. *enterica*, Strain LT2, NR-174."

**Biosafety Level: 2**

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2007; see [www.cdc.gov/od/ohs/biosfty/bmbl5toc.htm](http://www.cdc.gov/od/ohs/biosfty/bmbl5toc.htm).

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**References:**

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2. Tindall, B. J., et al. "Nomenclature and Taxonomy of the Genus *Salmonella*." Int. J. Syst. Evol. Microbiol. 55 (2005): 521–524. PubMed: 15653930.
3. McClelland, M., et al. "Complete Genome Sequence of *Salmonella enterica* Serovar Typhimurium LT2." Nature 413 (2001): 852–856. PubMed: 11677609. GenBank: AE006468.
4. Porwollik, S., et al. "DNA Amplification and Rearrangements in Archival *Salmonella enterica* Serovar Typhimurium LT2 Cultures." J. Bacteriol. 186 (2004): 1678–1682. PubMed: 14996798.
5. Zinder, N. D. and J. Lederberg. "Genetic Exchange in *Salmonella*." J. Bacteriol. 64 (1952): 679–699. PubMed: 12999698.
6. Lilleengen, K. "Typing *Salmonella typhimurium* by Means of Bacteriophage." Acta Pathol. Microbiol. Scand. Suppl. 77 (1948): 11–125.

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