**Salmonella enterica subsp. enterica**

**Catalog No. NR-170**
(Derived from ATCC® 6994™)

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**Contributor:**
ATCC®

**Product Description:**

**Bacteria Classification:** Enterobacteriaceae, Salmonella  
**Species:** Salmonella enterica  
**Subspecies:** Salmonella enterica subsp. enterica\(^1,2\) (formerly Salmonella typhimurium, Salmonella choleraesuis subsp. choleraesuis subtype Typhimurium)  
**Serotype:** B  
**Serovar:** Typhimurium  
**Antigenic Properties:** 4,1,2,i:1,2,3  
**Original Source:** This culture of Salmonella enterica (S. enterica) subsp. enterica serovar Typhimurium originally came from the Lister Institute of Preventive Medicine in London, England.  
**Comments:** This culture was deposited to the ATCC® in 1960 as Salmonella typhimurium var. binns by F. S. Orcutt from the Virginia Polytechnic Institute, Blacksburg, Virginia.

S. enterica are a Gram-negative, rod-shaped, flagellated bacterial species that are divided into six subspecies (I, II, IIIa, IIIb, IV, VI). Only subspecies I, subsp. enterica, is considered of clinical relevance and may result in (non-typhoidal) salmonellosis, one of the most common food-borne diseases with an estimated 2 million cases that occur in the United States every year.\(^3\) Pathogenicity results from a variety of virulence factors found in plasmids, prophages, and five pathogenicity islands which allow these organisms to colonize and infect host organisms.\(^4,5\)

S. enterica subsp. enterica serovar Typhimurium (formerly Salmonella typhimurium) is a major cause of gastroenteritis. Septic shock resulting in part from lipopolysaccharide (LPS) is a primary complication associated with serovar Typhimurium infection.\(^6\)

The complete genome sequence of several strains of S. enterica subsp. enterica serovar Typhimurium are in progress [strain DT104 (Definitive Type 104; a multidrug resistant strain), strain SL1344 (a genetically marked subtype of a calf-virulent isolate), and strain TR7095 (a wild-type strain)] and strain LT2 has been completed (GenBank: AE006468).\(^7\)

**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 purify prior to initiating work.

**Packaging/Storage:**

NR-170 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 broth.  
3. Use several drops of the suspension to inoculate an 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, NR-170."\(^8\)

**Biosafety Level:**

2


**Disclaimers:**

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References:

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