Salmonella enterica subsp. enterica, Strain NCTC 74 (Mutton)

Catalog No. NR-173
(Derived from ATCC® 13311™)

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Contributor: ATCC®

Product Description:
Bacteria Classification: Enterobacteriaceae, Salmonella
Species: Salmonella enterica
Subspecies: Salmonella enterica subsp. enterica (formerly Salmonella typhimurium, Salmonella choleraesuis subsp. choleraesuis subtype Typhimurium)
Strain: NCTC 74 (Mutton)
Antigenic Properties: 4,5,12:i:1,2
Serovar: Typhimurium
Original Source: Salmonella enterica (S. enterica) subsp. enterica, strain NCTC 74 (Mutton) was originally isolated from human feces from a case of food poisoning in 1911, and deposited to the ATCC® in 1958

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. 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.

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.

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: AE006488).

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-173 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 NCTC 74 (Mutton), NR-173.”

Biosafety Level: 2

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References: