Salmonella enterica subsp. enterica, 2004 Pennsylvania Tomato Outbreak, Serovar Anatum, Isolate 4

Catalog No. NR-4294

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Contributor:
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Product Description:
Bacteria Classification: Enterobacteriaceae, Salmonella
Species: Salmonella enterica
Subspecies: Salmonella enterica subsp. enterica1,2
Serogroup: E1
Serovar: Anatum
Isolate: 4

Original Source: Human stool from a patient with diarrhea during the 2004 Salmonella outbreak in Pennsylvania

Comments: The 2004 Salmonella outbreak was linked to the consumption of Roma tomatoes from deli counters of a chain of 302 gas station convenience stores in Pennsylvania and four nearby states. Multiple serotypes of Salmonella enterica were implicated.3,4

Salmonella enterica (S. enterica) are Gram-negative, rod-shaped, flagellated bacteria. The species is divided into six subspecies (I, II, IIIa, IIIb, IV, VI) where only subspecies I, subsp. enterica, is considered of clinical relevance. Salmonellosis (non-typhoidal), due to the greater than 1500 serovars of S. enterica subsp. enterica, is one of the most common food-borne diseases with an estimated 2 million cases that occur in the United States every year.5 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.6

S. enterica subsp. enterica serovar Anatum (formerly Salmonella anatum) is found in domestic and wild animals and is generally spread to humans via consumption of contaminated water or food resulting in gastroenteritis.

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-4294 was packaged aseptically, in screw-capped plastic cryovials. The product is provided frozen and should be stored at -70°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, 2004 Pennsylvania Tomato Outbreak, Serovar Anatum, Isolate 4, NR-4294."

Biosafety Level: 2

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References:

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