

Salmonella enterica subsp. enterica, Strain S11975 (Serovar Newport)

Catalog No. NR-22087

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: Enterobacteriaceae, Salmonella

Species: Salmonella enterica

Subspecies: Salmonella enterica subsp. enterica

Serovar: Newport

Strain: S11975 (also referred to as strain 11975)¹

Original Source: Salmonella enterica (S. enterica) subsp. enterica, strain S11975 was isolated in 2006 from cattle feces in Washington, USA.^{1,2}

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.³ 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 approximately 1 million cases that occur in the United States every year.⁴ 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.^{5,6}

S. enterica subsp. enterica serovar Newport (formerly Salmonella Newport) is prevalent in many geographic regions and has ranked in the top three Salmonella serotypes associated with foodborne outbreaks from 1995 to 2011 in the U.S. It is responsible for several major outbreaks involving tomatoes, ground beef, alfalfa sprouts, and other foods since 2002.⁷ Dairy cattle have been identified as the main reservoir and antimicrobial resistance is particularly problematic in many serovar Newport strains.⁸ At least three distinct evolutionary lineages exist in this serotype.^{7,9}

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Bordet Gengou broth supplemented with 10% glycerol.

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

Packaging/Storage:

NR-22087 was packaged aseptically in 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 Nutrient broth or equivalent

Tryptic Soy agar or Tryptic Soy agar with 5% defibrinated sheep blood 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 tube, slant and/or plate at 37°C for 1 day.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH as part of the Human Microbiome Project: Salmonella enterica subsp. enterica, Strain S11975 (Serovar Newport), NR-22087."

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 (BMBL). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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