Yersinia enterocolitica subsp. enterocolitica

Catalog No. NR-206
(Derived from ATCC® 27739™)

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Contributor:
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Product Description:
Bacteria Classification: Enterobacteriaceae, Yersinia
Species: Yersinia enterocolitica subsp. enterocolitica
Biotype/Biovar: 2
Serotype/Serovar: O:8
Original Source: Isolated in 1973 from stream water by C. Francis Varga, M.D.
Comments: This isolate of Yersinia enterocolitica (Y. enterocolitica) subsp. enterocolitica was isolated from stream water which infected a human patient. A blood isolate from this patient is referred to as Y. enterocolitica subsp. enterocolitica, strain WA (ATCC® 27729™; BEI Resources NR-205). Strain WA and the stream water isolate belong to the same serotype and lysogenic group. This stream water isolate was deposited at ATCC® in 1973 by Dr. Philip B. Carter of the Trudeau Institute, Inc., Seranac Lake, New York.

Y. enterocolitica subsp. enterocolitica is a significant food-borne enteropathogen which causes gastroenteritis. Y. enterocolitica subsp. enterocolitica is an extremely heterogeneous species, encompassing six biotypes and currently more than 50 serogroups, not all of which can cause disease. It is of particular concern to the food industry because it is a psychrotrophic pathogen able to proliferate at temperatures approaching 0°C.

Y. enterocolitica subsp. enterocolitica is a non-spore-forming, Gram-negative, rod-shaped coccobacillus. Virulence-associated genes are located on the chromosome and on the pYV (~ 64 to 75 kb) plasmid found in typical virulent strains of Y. enterocolitica subsp. enterocolitica. This plasmid encodes a type III secretion system involved in the delivery of virulence proteins that contribute to internalization into host cells.

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-206 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:
Brain Heart Infusion Broth or Tryptic Soy Broth
Tryptic Soy Agar or Sheep Blood Agar
Incubation:
Temperature: 26°C
Atmosphere: Aerobic
Propagation:
1. Keep vial frozen until ready for use; thaw slowly.
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 26°C for 24–48 hours.

Citation:
Acknowledgment for publications should read “The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Yersinia enterocolitica subsp. enterocolitica, NR-206.”

Biosafety Level: 2

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**References:**

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