Product Information Sheet for NR-803

Yersinia enterocolitica subsp. *enterocolitica*, Strain 33114

Catalog No. NR-803
(Derived from ATCC® 9610™)

For research use only. Not for human use.

Contributor:
ATCC®

Product Description:
Bacteria Classification: *Enterobacteriaceae, Yersinia*
Agent: *Yersinia enterocolitica* subsp. *enterocolitica* [1,2]
Biotype: 1
Serotype: O:8
Phagovar: X_z
Type Strain: 33114
Original Source:[3,4] Isolated from facial abscesses of an adult human with a chronic, glanders-like infection of the face in New York, 1934.
Comments: *Yersinia enterocolitica* subsp. *enterocolitica (Y. enterocolitica* subsp. *enterocolitica)*, strain 33114 was deposited at ATCC® in 1944 by Julia M. Coffee, Associate Bacteriologist, New York Department of Health, Division of Laboratories and Research, Albany, 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.[5] 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*.[6] This plasmid encodes a type III secretion system involved in the delivery of virulence proteins that contribute to internalization into host cells.[7]

The presence of the pYV plasmid in NR-803 has been confirmed by gel electrophoresis of extracted DNA.

Material Provided:
Each vial contains approximately 0.5 mL of bacterial culture in 0.5X Tryptic Soy Broth supplemented with 10% glycerol.

Packaging/Storage:
NR-803 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:[8] 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*, Strain 33114, NR-803."

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. 4th ed. Washington, DC: U.S. Government Printing Office, 1999. HHS Publication No. (CDC) 93-8395. This text is available online at www.cdc.gov/od/ohs/biosfty/bmbl4/bmbl4toc.htm.

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References:

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