

### Genomic DNA from *Yersinia enterocolitica* subsp. *enterocolitica*, Strain 33114

Catalog No. NR-2646

For research use only. Not for human use.

**Contributor:**  
ATCC®

#### Product Description:

Genomic DNA was isolated from a preparation of *Yersinia enterocolitica* subsp. *enterocolitica* (*Y. enterocolitica* subsp. *enterocolitica*), strain 33114.

*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*.<sup>1</sup> This plasmid encodes a type III secretion system involved in the delivery of virulence proteins that contribute to internalization into host cells.<sup>2</sup>

*Y. enterocolitica* subsp. *enterocolitica* 33114 was isolated from facial abscesses of an adult human in New York (1934) with a chronic, glanders-like infection of the face.<sup>3,4</sup>

The presence of the pYV plasmid in NR-2646 has been confirmed by gel electrophoresis. NR-2646 has been qualified for PCR applications by amplification of ~ 1500 bp of the 16S ribosomal RNA gene.

#### Material Provided:

Each vial contains approximately 5 µg of bacterial genomic DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH ~ 7.4). The concentration, expressed as µg per µL, is shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

#### Packaging/Storage:

NR-2646 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Genomic DNA from *Yersinia enterocolitica* subsp. *enterocolitica*, Strain 33114, NR-2646."

#### Biosafety Level: 1

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](http://www.cdc.gov/od/ohs/biosfty/bmbl4/bmbl4toc.htm).

#### Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at [www.beiresources.org](http://www.beiresources.org).

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government make any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

#### Use Restrictions:

**This material is distributed for internal research, non-commercial purposes only.** This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

#### References:

1. Bottone, E. J. "*Yersinia enterocolitica*: The Charisma Continues." Clin. Microbiol. Rev. 10 (1997): 257–276. PubMed: 9105754.
2. Snellings, N. J., M. Popek, and L. E. Lindler. "Complete DNA Sequence of *Yersinia enterocolitica* Serotype O:8 Low-Calcium-Response Plasmid Reveals a New Virulence Plasmid-Associated Replicon." Infect. Immun. 69 (2001): 4627–4638. PubMed: 11402007.
3. McIver, M. A. and R. M. Pike. "Chronic Glanders-Like Infection of Face Caused by an Organism Resembling

- Flavobacterium pseudomallei* Whitmore." Clinical Misc. Mary Imogene Basset Hosp. 1 (1934): 16–21.
4. Schleifstein, J. and M. B. Coleman. "Unidentified Microorganisms Resembling *B. lignieri* and *Past. pseudotuberculosis* Pathogenic for Man." N.Y. State J. Med. 39 (1939): 1749–1753.
  5. "Validation List No. 75." Int. J. Syst. Evol. Microbiol. 50 (2000): 1415–1417.
  6. Neubauer, H., et al. "*Yersinia enterocolitica* 16S rRNA Gene Types Belong to the Same Genospecies but Form Three Homology Groups." Int. J. Med. Microbiol. 290 (2000): 61–64. PubMed: 11043982.
  7. Viridi, J. S. and P. Sachdeva. "Molecular Heterogeneity in *Yersinia enterocolitica* and 'Y. enterocolitica-Like' Species – Implications for Epidemiology, Typing and Taxonomy." FEMS Immunol. Med. Microbiol. 45 (2005): 1–10. PubMed: 15985218.
  8. Chu, M. C. Laboratory Manual of Plague Diagnostic Tests. Centers for Disease Control and Prevention, Atlanta, 2000.
  9. Park, S., L. T. Smith, and G. M. Smith. "Role of Glycine Betaine and Related Osmolytes in Osmotic Stress Adaptation in *Yersinia enterocolitica* ATCC 9610." Appl. Environ. Microbiol. 61 (1995): 4378–4381. PubMed: 16535192.

ATCC® is a trademark of the American Type Culture Collection.

