**Yersinia enterocolitica** subsp. **enterocolitica**, Strain 33114

**Catalog No. NR-214**
( Derived from ATCC® 9610™ )

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**Contributor:**
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**Product Description:**
Bacteria Classification: Enterobacteriaeae, Yersinia
Agent: Yersinia enterocolitica subsp. enterocolitica 1,2
Biotyp/Biovar: 1
Serotype/Serovar: 0:8
Phagovar: X2
Type Strain: 33114
Original Source: 1,4 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. 6 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. 8 This plasmid encodes a type III secretion system involved in the delivery of virulence proteins that contribute to internalization into host cells.

The presence of the pYV plasmid in NR-214 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-214 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, Strain 33114, NR-214.”

**Biosafety Level: 2**


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References:

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