

***Escherichia coli*, Strain JJ1887**

Catalog No. NR-51487

This reagent is the tangible property of the U.S. Government.

For research use only. Not for use in humans.

Contributor:

James R. Johnson, MD, Department of Research, United States Department of Veterans Affairs, Minneapolis Veterans Affairs Healthcare System, Minneapolis, Minnesota, USA

Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Enterobacteriaceae*, *Escherichia*

Species: *Escherichia coli*

Strain: JJ1887

Original Source: *Escherichia coli* (*E. coli*), strain JJ1887 was isolated in 2007 from a woman with recurrent cystitis.^{1,2}

Comments: *E. coli*, strain JJ1887 belongs to the virulent H30-Rx sublineage of *E. coli* sequence type 131 (ST131) and is reported to carry antibiotic resistant genes against beta-lactamases (*bla*_{CTX-M-15}, *bla*_{TEM-1B}, *bla*_{OXA}), fluoroquinolones [*aac*(6')-*Ib-cr*, *qepA*], aminoglycosides [*aac*(3)-*Ila*], macrolides [*mph*(A)], tetracyclines [*tet*(B)], trimethoprim (*dfrB4*) and sulfonamides (*sul1*).² The complete chromosome sequence of *E. coli*, strain JJ1887 and the sequences of its five plasmids, pJJ1887-1 through pJJ1887-5, are available (GenBank: [CP014316](#), [CP014317](#), [CP014318](#), [CP014319](#), [CP014320](#) and [CP014321](#), respectively).

E. coli is a Gram-negative, rod-shaped bacterium commonly found in the gut flora of warm-blooded animals and is the primary facultative anaerobe of the human gastrointestinal tract. While most *E. coli* strains are harmless and are an important part of a healthy intestinal tract, some serotypes are pathogenic, causing diarrhea, urinary tract infections, respiratory illness, pneumonia or other illnesses in their host.^{3,4,5}

Material Provided:

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

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

Packaging/Storage:

NR-51487 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 Nutrient agar 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: *Escherichia coli*, Strain JJ1887, NR-51487."

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.

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.

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 makes 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. Johnson, J. R., Personal Communication.
2. Johnson, T. J., et al. "Complete Genome Sequence of a CTX-M-15-Producing *Escherichia coli* Strain from the H30Rx Subclone of Sequence Type 131 from a Patient with Recurrent Urinary Tract Infections, Closely Related to a Lethal Urosepsis Isolate from the Patient's Sister." Genome Announc. 4 (2016): e00334-16. PubMed: 27174264.
3. Nataro, J. P. and J. B. Kaper. "Diarrheagenic *Escherichia coli*." Clin. Microbiol. Rev. 11 (1998): 142-201. PubMed: 9457432.
4. Kaper, J. B., J. P. Nataro and H. L. Mobley. "Pathogenic *Escherichia coli*." Nat. Rev. Microbiol. 2 (2004): 123-140. PubMed: 15040260.
5. Croxen, M. A., et al. "Recent Advances in Understanding Enteric Pathogenic *Escherichia coli*." Clin. Microbiol. Rev. 26 (2013): 822-880. PubMed: 24092857.

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

