

Product Information Sheet for NR-21988

***Vibrio parahaemolyticus*, Strain 659-2110-1(K1189) (Serotype O4:K63)**

Catalog No. NR-21988

For research use only. Not for human use.

Contributor:

U.S. Food and Drug Administration, Texas Department of Health, Alaska Department of Environmental Conservation and the New York State Department of Health

Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Vibrionaceae*, *Vibrio*

Species: *Vibrio parahaemolyticus*

Strain: 659-2110-1(K1189)

Serotype: O4:K63¹

Original Source: *Vibrio parahaemolyticus* (*V. parahaemolyticus*), strain 659-2110-1(K1189) was isolated from an oyster in Alaska, USA.¹

Comments: *V. parahaemolyticus*, strain 659-2110-1(K1189) was deposited as positive for *tlh* (species specific marker), *tdh* (thermostable direct hemolysin) and *trh* (*tdh*-related hemolysin) by qPCR analysis.¹

Vibrio parahaemolyticus (*V. parahaemolyticus*) is a halophilic, Gram-negative motile, curved-rod shaped bacterium with a single polar flagellum. It is found in estuarine and coastal waters worldwide (Spain, Asia, Russia, South America, Africa and the United States). It is the leading cause of foodborne gastroenteritis. It is usually ingested in undercooked or raw seafood.²

V. parahaemolyticus is serotyped on the basis of somatic (O) and capsular (K) antigens, and is classified into at least 11 O-serogroups³ and over 70 K-serogroups. Certain serotypes, including O3:K6, O1:KUT, O4:K12 and O4:K68, have been reported to be more virulent^{2,3} and are considered to be the dominant serotypes responsible for infection.

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Brain Heart Infusion Broth supplemented with 10% glycerol.

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

Packaging/Storage:

NR-21988 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 equivalent

Tryptic Soy Agar with 5% defibrinated sheep blood 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 24 hours.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Vibrio parahaemolyticus*, Strain 659-2110-1(K1189) (Serotype O4:K63), NR-21988."

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. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.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.

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 the 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. A. DePaola, U.S. Food and Drug Administration, Division of Seafood Science and Technology, Gulf Coast Seafood Laboratories, Dauphin Island, Alabama Personal Communication
2. Jones, J. L., et al. "Biochemical, Serological, and Virulence Characterization of Clinical and Oyster *Vibrio parahaemolyticus* Isolates." *J. Clin. Microbiol.* 50 (2012): 2343-2352. PubMed: 22535979.
3. Chen, M. et al. "Development of O-Serogroup Specific PCR Assay for Detection and Identification of *Vibrio parahaemolyticus*." *Int. J. Food Microbiol.* 159 (2012): 122-129. PubMed: 23072697.

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

