

***Vibrio cholerae*, Strain CVD 101**

Catalog No. NR-148

(Derived from ATCC® 39540™)

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Contributor:

ATCC®

Product Description:

Bacteria Classification: *Vibrionaceae*, *Vibrio*

Species: *Vibrio cholerae*

Strain: CVD 101

Serogroup: O:1

Serotype: Ogawa

Biotype: Classical

Source:¹ Derived from the pathogenic Ogawa 395 strain that was isolated from India

Comment: *Vibrio cholerae* (*V. cholerae*), strain CVD 101 was deposited at ATCC® in 1983 by Dr. James B. Kaper, Professor of Medicine, Center for Vaccine Development, University of Maryland School of Medicine, Baltimore, Maryland. *V. cholerae*, strain CVD 101 has been genetically modified by deleting the genes encoding the A subunit of cholera toxin.¹

V. cholerae is a natural inhabitant of warm aquatic environments and the causative agent of the diarrheal disease cholera. More than 200 O-antigen serogroups have been identified but only O1 and more recently O139 are known to cause epidemic and pandemic cholera.² Occasionally, there are cholera outbreaks that result from non-O1 and non-O139 serotypes. *V. cholerae* colonizes the mucosal surface of the small intestines of humans, the only known animal host.³ Cholera has a high lethality if left untreated, and millions have died in the seven pandemics that have occurred since 1817.

Cholera toxin, the toxin-coregulated pilus (TCP) and the central regulatory protein, ToxR, are recognized as significant factors in the pathogenicity of toxigenic strains of *V. cholerae* serogroups O1 and O139.⁴

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in 0.5X 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-148 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:

Tryptic Soy Broth or equivalent

Tryptic Soy 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 tubes and plate at 37°C for 24 hours.

Citation:

Acknowledgment for publications should read “The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: *Vibrio cholerae*, Strain CVD 101, NR-148.”

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, 2007; see www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm.

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