

### ***Campylobacter jejuni* subsp. *jejuni*, Strain AS-84-79**

#### **Catalog No. NR-4081**

(Derived from ATCC® 33292™)

#### **For research only. Not for human use.**

#### **Contributor:**

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#### **Product Description:**

Bacteria Classification: *Campylobacteraceae*,  
*Campylobacter*

Species: *Campylobacter jejuni* subsp. *jejuni*

Strain: AS-84-79

Original Source: Isolated from human stool culture by Wen-Lan L. Wang, Ph.D. at the Veterans Administration Hospital, Denver, Colorado

Comment: The AS-84-79 strain was deposited at ATCC® in 1980 as *Campylobacter fetus* subsp. *jejuni* by Patricia G. Martin, M.D., BBL Microbiology Systems, Cockeysville, Maryland.

*Campylobacter jejuni* (*C. jejuni*) is a Gram-negative slender, curved, motile rod commonly found in animal feces. It is a microaerophilic organism that is very sensitive to environmental stresses.<sup>1</sup> *C. jejuni* is among the most frequently identified bacterial causes of human gastroenteritis in the United States and other industrialized countries.<sup>2</sup> Food poisoning caused by *C. jejuni* can be largely attributed to the consumption of contaminated food animal products, especially poultry. In most cases, the resulting infection can be severely debilitating but is rarely life-threatening. However, in some cases, *C. jejuni* infections have been linked to the subsequent development of two neuropathies, Guillain-Barré syndrome and Miller-Fisher syndrome<sup>3</sup> and to a reactive arthropathy, Reiter syndrome.<sup>1-4</sup>

#### **Material Provided:**

Each vial contains approximately 0.5 mL of bacterial culture in 0.5X Brucella Broth supplemented with 10% glycerol.

#### **Packaging/Storage:**

NR-4081 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:

Brucella Broth on Tryptic Soy Agar (TSA) with 5% defibrinated sheep blood, or equivalent

##### Incubation:

Temperature: 37–42°C

Atmosphere: Microaerophilic (3–5% O<sub>2</sub> and 4–8% CO<sub>2</sub>)

##### Propagation:

1. Keep vial frozen until ready to use, then thaw.
2. Transfer the entire thawed aliquot into Brucella Broth.
3. Inoculate a TSA with 5% defibrinated sheep blood slant with the suspension.
4. Incubate the slant at 37–42°C, under microaerophilic conditions, for 48 hours.
5. Harvest the slant with Brucella Broth and add to TSA with 5% defibrinated sheep blood Kolle.
6. Incubate an additional 24 hours at 37–42°C, under microaerophilic conditions.

##### Note:

The thawed vial may be plated directly on TSA with 5% defibrinated sheep blood and grown at 37–42°C in a microaerophilic atmosphere. This may require a longer incubation time than the biphasic culture.

##### **Citation:**

Acknowledgment for publications should read “The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: *Campylobacter jejuni* subsp. *jejuni*, Strain AS-84-79, NR-4081.”

##### **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](http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm).

##### **Disclaimers:**

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### References:

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2. Gibreel, A. and D. E. Taylor. "Macrolide Resistance in *Campylobacter jejuni* and *Campylobacter coli*." J. Antimicrob. Chemother. 58 (2006): 243–255. PubMed: 16735431.
3. Woodward, D. L. and F. G. Rodgers. "Identification of *Campylobacter* Heat-Stable and Heat-Labile Antigens by Combining the Penner and Lior Serotyping Schemes." J. Clin. Microbiol. 40 (2002): 741–745. PubMed: 11880386.
4. Sinha, S., et al. "Detection of Preceding *Campylobacter jejuni* Infection by Polymerase Chain Reaction in Patients with Guillain-Barré Syndrome." Trans. R. Soc. Trop. Med. Hyg. 98 (2004): 342–346. PubMed: 15099989.
5. Wilson, D. L., et al. "Identification of Ciprofloxacin-Resistant *Campylobacter jejuni* by Use of a Fluorogenic PCR Assay." J. Clin. Microbiol. 38 (2000): 3971–3978. PubMed: 11060054.
6. Blaser, M. J., et al. "*Campylobacter* Enteritis: Clinical and Epidemiologic Features." Ann. Intern. Med. 91 (1979): 179–185. PubMed: 380433.
7. Hunt, J. M., C. Abeyta, and T. Tran. Bacteriological Analytical Manual, 8th Edition, Revision A. U.S. Food and Drug Administration 1998. 26-04-2007 <<http://www.cfsan.fda.gov/~ebam/bam-7.html>>.

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