Campylobacter jejuni subsp. jejuni, Strain D3071

Catalog No. NR-399
(Derived from ATCC® BAA-221™)

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Contributor:
ATCC®

Product Description:
Bacteria Classification: Campylobacteraceae, Campylobacter
Species: Campylobacter jejuni subsp. jejuni
Strain: D3071
Serotype: O41:HL27
Original Source: Isolated from human feces by the Colorado Department of Health

Comment: The D3071 strain was deposited at ATCC by the Centers for Disease Control and Prevention. Serotype O41:HL27 has been associated with Guillain-Barré syndrome.1

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.2 C. jejuni is among the most frequently identified bacterial causes of human gastroenteritis in the United States and other industrialized countries.3 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, Miller-Fisher syndrome and to a reactive arthropathy, Reiter syndrome.4

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

Packaging/Storage:
NR-399 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% O2 and 4–8% CO2)

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 D3071, NR-399.”

Biosafety Level: 2

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References:

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