

#### SUPPORTING INFECTIOUS DISEASE RESEARCH

# **Product Information Sheet for NR-35358**

# Leptospira interrogans, Strain CSL4002 (Serovar Pomona)

### Catalog No. NR-35358

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

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

#### Contributor:

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#### Manufacturer:

**BEI Resources** 

#### **Product Description:**

Bacteria Classification: Leptospiraceae, Leptospira

Species: Leptospira interrogans

Serovar: Pomona (also referred to as serovar Pomona/Kennewicki and serovar Pomona type kennewicki. Serovar Kennewicki is no longer recognized as a distinct serovar of *Leptospira interrogans* as it is serologically indistinguishable from serovar Pomona. )

Strain: CSL4002

<u>Original Source</u>: Leptospira interrogans (L. interrogans), strain CSL4002 (serovar Pomona) was isolated from a sea lion in California, USA.<sup>1</sup>

<u>Comments</u>: The complete genome of *L. interrogans*, strain CSL4002 (serovar Pomona) has been sequenced (GenBank: <u>ANMZ000000000</u>).

*L. interrogans* is a thin, motile, slow-growing obligate aerobe spirochete with distinctive hooked ends and two axial flagella that causes the acute zoonotic-disease leptospirosis.<sup>4,5</sup> Rats are the reservoir hosts of pathogenic *L. interrogans* serovars and shed leptospires from their kidneys, where the bacteria colonize in renal tubules.<sup>5</sup> Humans are incidentally-infected by direct contact with their urine or indirectly through contaminated water or soil in areas of heavy rainfall in urban areas with poor sanitation and flood control infrastructure in developing countries.<sup>6,7,8,9</sup> Leptospirosis is an emerging global disease due to exposure through tourism in highly-endemic areas.<sup>4</sup>

*L. interrogans* virulence is not fully understood, however interactions between surface protein virulence factors (including lipopolysaccharide, flagella, heme oxygenase, adhesion molecules and outer membrane proteins) and extracellular matrix components of host tissues have been demonstrated.<sup>4,5</sup>

#### **Material Provided:**

Each vial contains approximately 0.5 mL of bacterial culture in Ellinghausen-McCullough-Johnson-Harrison (EMJH) medium supplemented with 2.5% DMSO.

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

#### Packaging/Storage:

NR-35358 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:

Ellinghausen-McCullough-Johnson-Harrison (EMJH) semisolid agar (0.15%) (ATCC® medium 2653) or equivalent

Incubation:

Temperature: 30°C Atmosphere: Aerobic

Propagation:

- 1. Keep vial frozen until ready for use; thaw slowly.
- Transfer the entire thawed aliquot into a single tube or jar of semisolid agar.
- 3. Incubate the tube or jar at 30°C for 18 to 24 days until an opaque disk of growth is visible several millimeters below the surface of the medium (Dinger's disk).

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Leptospira interrogans*, Strain CSL4002 (Serovar Pomona), NR-35358."

#### 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.

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