

***Leptospira licerasiae*, Strain MMD0835
(Serovar Varillal)**

Catalog No. NR-19886

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Leptospiraceae*, *Leptospira*

Species: *Leptospira licerasiae*

Serovar: Varillal

Strain: MMD0835 (also known as MMD835)¹

Original Source: *Leptospira licerasiae* (*L. licerasiae*), strain MMD0835 (serovar Varillal) is an intermediately pathogenic strain that was isolated in January 2003 from the kidney of a gray four-eyed opossum (*Philander opossum*) in Loreto, Maynas, Iquitos, Peru.^{2,3}

Comments: *L. licerasiae*, strain MMD0835 was deposited to BEI Resources as part of the [Leptospira Genome Project](#) at the J. Craig Ventor Institute's [Genomic Sequencing Center for Infectious Diseases](#) (GSCID). The whole genome sequence of *L. licerasiae*, strain MMD0835 is available (GenBank: [AFLO01000000](#)).

The genus *Leptospira* consists of thirteen pathogenic species that cause the acute zoonotic-disease leptospirosis and six free-living saprophytic species found in water and soil that do not infect animal hosts.^{4,5} Leptospirae are thin, motile, slow-growing obligate aerobic spirochetes with distinctive hooked ends and two axial flagella.^{4,5}

L. licerasiae is an antigenically-unique species that causes a non-specific syndrome of undifferentiated fever in humans and is a significant cause of acute leptospirosis in the Peruvian Amazon region of Iquitos via a *Rattus* reservoir.¹

Material Provided:

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

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

Packaging/Storage:

NR-19886 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:

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.
2. Transfer the entire thawed aliquot into a single tube or jar of semisolid agar.
3. Incubate the tube or jar at 30°C for 10 to 24 days until an opaque disk of growth is visible several millimeters below the surface of the medium (Dinger's disk).

Note: Due to the nature of *Leptospira* to form a Dinger's disk in semi-solid agar, it may be difficult to obtain a homogenous pool of cells to ensure an even distribution in all vials. If growth is not observed after 10 weeks in culture, please contact BEI Resources for a replacement.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Leptospira licerasiae*, Strain MMD0835 (Serovar Varillal), NR-19886."

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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References:

1. Matthias, M. A., et al. "Human Leptospirosis Caused by a New, Antigenically Unique *Leptospira* Associated with a *Rattus* Species Reservoir in the Peruvian Amazon." PLoS Negl. Trop. Dis. 2 (2008): e213. PubMed: 18382606.
2. Vinetz, J., Personal Communication.
3. Ricaldi, J. N., et al. "Whole Genome Analysis of *Leptospira licerasiae* Provides Insight into Leptospiral Evolution and Pathogenicity." PLoS Negl. Trop. Dis. 6 (2012): e1853. PubMed: 23145189.
4. Evangelista, K. V. and J. Coburn. "*Leptospira* as an Emerging Pathogen: A Review of its Biology, Pathogenesis and Host Immune Responses." Future Microbiol. 9 (2010): 1413-1425. PubMed: 20860485.
5. Ko, A. I., C. Goarant and M. Picardeau. "*Leptospira*: The Dawn of the Molecular Genetics Era for an Emerging Zoonotic Pathogen." Nat. Rev. Microbiol. 7 (2009): 736-747. PubMed: 19756012.
6. Vinetz, J. M. and K. Nelson. "*Leptospira* Genomics and Human Health." J. Craig Venter Institute's Genomic Sequencing Center for Infectious Diseases. (2010) <<http://gsc.jcvi.org/projects/gsc/leptospira/index.shtml>>

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