Native Legionella Pneumophila Cells, Heat-Inactivated

Cat. No. LEG-483 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Heat-killed Legionella pneumophila cells in dextran solution. Antigen is intended for use as a positive control in immunoassay development for Legionella detection.
Background	Legionella pneumophila is a Gram-negative bacterium of the genus Legionella and is the causative agent of Legionnaires' disease, also known as legionellosis and a mild flu-like illness called Pontiac fever (WHO, 2019). It was named after an outbreak in 1976 among people attending a convention of the American Legion, an association of U.S. military veterans, during which 221 persons were infected and 34 ultimately died. In the natural environment, Legionella lives within amoebae such as Acanthamoeba spp., Naegleria spp., and Vermamoeba vermiformis, or other protozoa such as Tetrahymena pyriformis. Legionella species generally exist at low concentrations, in groundwater, lakes and streams. However, after entering man-made environments (e.g. hot water tanks, hot tubs, and cooling towers), they can reproduce rapidly under the right environmental conditions. Transmission is via inhalation of water droplets from a contaminated source that has allowed the organism to grow and spread and less commonly via aspiration of drinking water from an infected source. L. pneumophila invades human macrophages and replicates within a dedicated compartment, the Legionella-containing vacuole (LCV), protecting it from bactericidal lysosomes. Symptoms of Legionnaires' disease include cough, high fever, muscle pains, shortness of breath and headaches, and sometimes may also include vomiting, nausea, and diarrhoea. Several methods are available for the detection of Legionella infection including culture, serological tests and qPCR, although no vaccine is available for legionellosis. Genetic modification of L. pneumophila has been shown to increase the mortality rate

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	in infected animals to nearly 100% and it may have been tested as a biological weapon by some countries (Gilsdorf and Zilinskas, 2005).
Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
Type	Native
ClassID 1	Infectious Disease

GENE INFORMATION

Synonyms	Legionella Pneumophila

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