



Legionella pneumophila (5E363): sc-71509

BACKGROUND

Legionella pneumophila is a Gram-negative bacterium that is considered an intracellular parasite and is associated with Legionnaires' disease. While *L. pneumophila* is categorized as a Gram-negative organism, it stains poorly due to its unique lipopolysaccharide (LPS)-content in the outer leaflet of the outer cell membrane. Respiratory transmission of this organism can lead to infection, which is usually characterized by a gradual onset of flu-like symptoms. Patients may experience fever, chills and a dry cough as part of the early symptoms and can develop severe pneumonia which is not responsive to penicillins or aminoglycosides. Legionnaires' disease also has the potential to spread into other organ-systems of the body such as the gastrointestinal tract and the central nervous system.

REFERENCES

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- Lüneberg, E., et al. 2001. Chromosomal insertion and excision of a 30 kb unstable genetic element is responsible for phase variation of lipopolysaccharide and other virulence determinants in *Legionella pneumophila*. Mol. Microbiol. 39: 1259-1271.
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- Girard, R., et al. 2002. Lipopolysaccharides from *Legionella* and *Rhizobium* stimulate mouse bone marrow granulocytes via Toll-like receptor 2. J. Cell Sci. 116: 293-302.
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- Vedam, V., et al. 2003. A *Rhizobium leguminosarum* AcpXL mutant produces lipopolysaccharide lacking 27-hydroxyoctacosanoic acid. J. Bacteriol. 185: 1841-1850.
- Rogers, J., et al. 2005. Epigallocatechin gallate modulates cytokine production by bone marrow-derived dendritic cells stimulated with lipopolysaccharide or muramyl dipeptide, or infected with *Legionella pneumophila*. Exp. Biol. Med. 230: 645-651.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

SOURCE

Legionella pneumophila (5E363) is a mouse monoclonal antibody raised against *Legionella pneumophila*.

PRODUCT

Each vial contains 100 μ g IgG₃ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Legionella pneumophila (5E363) is recommended for detection of *Legionella pneumophila* serogroup 1 by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); also recommended for detection of Pontiac 1, Benidorm, Knoxville and Philadelphia; non cross-reactive with *L. erythra*, *L. dumoffi* and related microorganisms.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.