



piID (bN-13): sc-17380

BACKGROUND

Legionellosis is an infection caused by the bacterium *Legionella pneumophila*. The disease has two distinct forms: Legionnaires' disease, which is the more severe form of infection and includes pneumonia, and Pontiac fever, which is a milder illness. *Legionella pneumophila* is an intracellular pathogen of protozoa and alveolar macrophages. This facultative, intracellular pathogen is normally found within the aquatic environment and is a frequent contaminant of industrial and domestic water systems. There are at least 14 different serotypes of *L. pneumophila*. This bacterium contains the piID gene, which is involved in both type IV pilus biogenesis and type II protein secretion. The PiID prepilin peptidase is crucial for intracellular infection by *L. pneumophila*. The secreted piID-dependent proteins include a metalloprotease, an acid phosphatase, an esterase/lipase, a phospholipase A, and a p-nitrophenyl phosphorylcholine hydrolase.

REFERENCES

1. Akbas, E. and Yu, V.L. 2001. Legionnaires' disease and pneumonia. Beware the temptation to underestimate this "exotic" cause of infection. *Postgrad Med.* 5: 135-138, 141-142, 147.
2. Aragon, V., Kurtz, S., and Cianciotto, N.P. 2001. *Legionella pneumophila* major acid phosphatase and its role in intracellular infection. *Infect. Immun.* 1: 177-185.
3. Rossier, O. and Cianciotto, N.P. 2001. Type II protein secretion is a subset of the PiID-dependent processes that facilitate intracellular infection by *Legionella pneumophila*. *Infect. Immun.* 4: 2092-2098.
4. Flieger, A., Gong, S., Faigle, M., Stevanovic, S., Cianciotto, N.P., and Neumeister, B. 2001. Novel lysophospholipase A secreted by *Legionella pneumophila*. *J. Bacteriol.* 6: 2121-2124.
5. Yu, V.L. 2001. Legionnaires' disease: seek and ye shall find. *Cleve. Clin. J. Med.* 4: 318-322

SOURCE

piID (bN-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of piID of *L. pneumophila* origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17380 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

piID (bN-13) is recommended for detection of piID of *L. pneumophila* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

RESEARCH USE

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