

VIASURE

Legionella Real Time PCR Detection Kit

Pathogen and product description

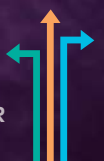
Legionellae are aerobic gram-negative bacteria associated with respiratory infections. *Legionellae* are ubiquitous in environmental water sources and may cause sporadic as well as epidemic cases, which can be nosocomial, community-acquired and travel-associated. Aerosol-generating systems such as faucets, showerheads, whirlpools, cooling towers, and nebulizers aid in the transmission of *Legionella* from water to air. Afterwards, human inhalation or aspiration of contaminated water droplets into the lower respiratory tract leads to *Legionella* infections and disease outbreaks.

Legionellosis classically presents as two distinct clinical entities, Legionnaires' disease (LD), a pneumonia with severe multisystem disease, and Pontiac fever, a self-limited flu-like illness. Legionnaires' disease presents additional non-specific symptoms include fever, non-productive cough, myalgias, dyspnea and diarrhea, and

neurological findings such as headache and lethargy. Pontiac fever is also characterized by malaise, myalgia, and fever; but it is a milder non-pneumonic infection.

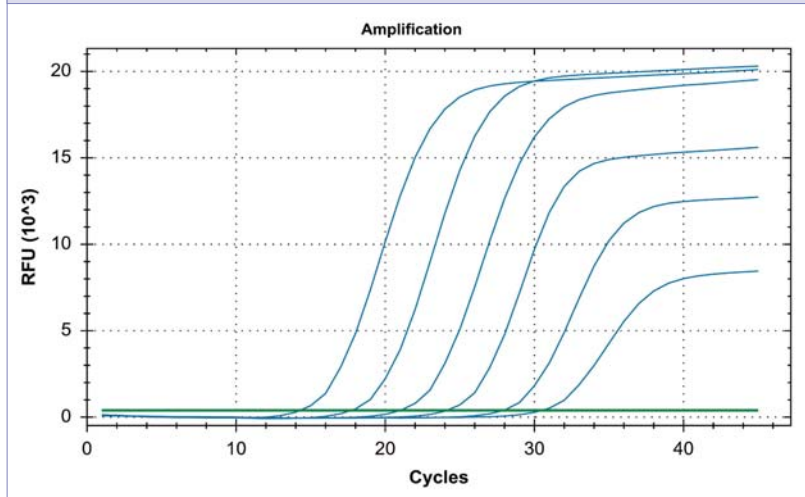
Diagnostic delay may also result in increased mortality rates among the elderly and patients with severe underlying disease. Although culture is considered the "gold standard" for detection of *Legionella*, its growth is slow and fastidious. Therefore other strategies to ensure a rapid diagnosis have been developed. Among them, several PCR assays targeting the rRNA genes, and the macrophage infectivity potentiator gene (*mip*) have been reported.

VIASURE *Legionella* Real Time PCR Detection Kit is designed for the diagnosis of *Legionella* in clinical samples. After DNA isolation, the identification of *Legionella* is performed by the amplification of a conserved region of the 23S rRNA gene using specific primers and a fluorescent-labelled probe.



Analytical sensitivity

VIASURE Legionella Real Time PCR Detection Kit has a detection limit of ≥ 100 DNA copies per reaction.



Dilution series of Legionella (10^7 - 10^2 copies/rxn) template run on the Bio-Rad CFX96 Touch™ Real-Time PCR Detection System.

Components

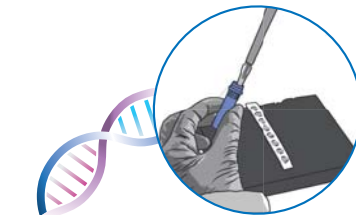
Reagent/Material	Description	Quantity
Legionella 8-well strips	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format	6/12 x 8-well strip
Legionella 96-well plate	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format	1 plate
Rehydration Buffer	Solution to reconstitute the stabilized product	1 vial x 1,8 mL
Legionella Positive Control	Non-infectious synthetic lyophilized cDNA	1 vial
Negative Control	Non template control	1 vial x 1 mL
Water RNase/DNase free	Water RNase/DNase free	1 vial x 1 mL
Tear-off 8-cap strips	Optical caps for sealing Wells during thermal cycling	6/12 x 8-cap strip
Shell Frame Grid	Shell Frame Grid	1 or 2

Kit References

Reference	Description
VS-LGS106L	Viasure Legionella Real Time PCR Detection Kit 6 x 8-well strips, low profile
VS-LGS106H	Viasure Legionella Real Time PCR Detection Kit 6 x 8-well strips, high profile
VS-LGS112L	Viasure Legionella Real Time PCR Detection Kit 12 x 8-well strips, low profile
VS-LGS112H	Viasure Legionella Real Time PCR Detection Kit 12 x 8-well strips, high profile
VS-LGS113L	Viasure Legionella Real Time PCR Detection Kit 96-well plate, low profile
VS-LGS113H	Viasure Legionella Real Time PCR Detection Kit 96-well plate, high profile

Work Flow

One-step rehydration of wells and add your extracted DNA



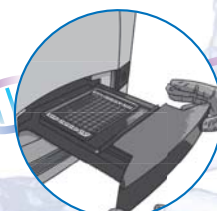
STEP 1

Add 15 μ l of rehydration buffer into each well



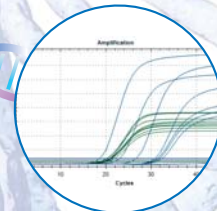
STEP 2

Add 5 μ l of DNA sample / positive control / negative control



STEP 3

Load the strips into the thermocycler and run the specified protocol



STEP 4

Interpretate results



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