

VIASURE

Parainfluenza 1 Real Time PCR Detection Kit

Pathogen and product description

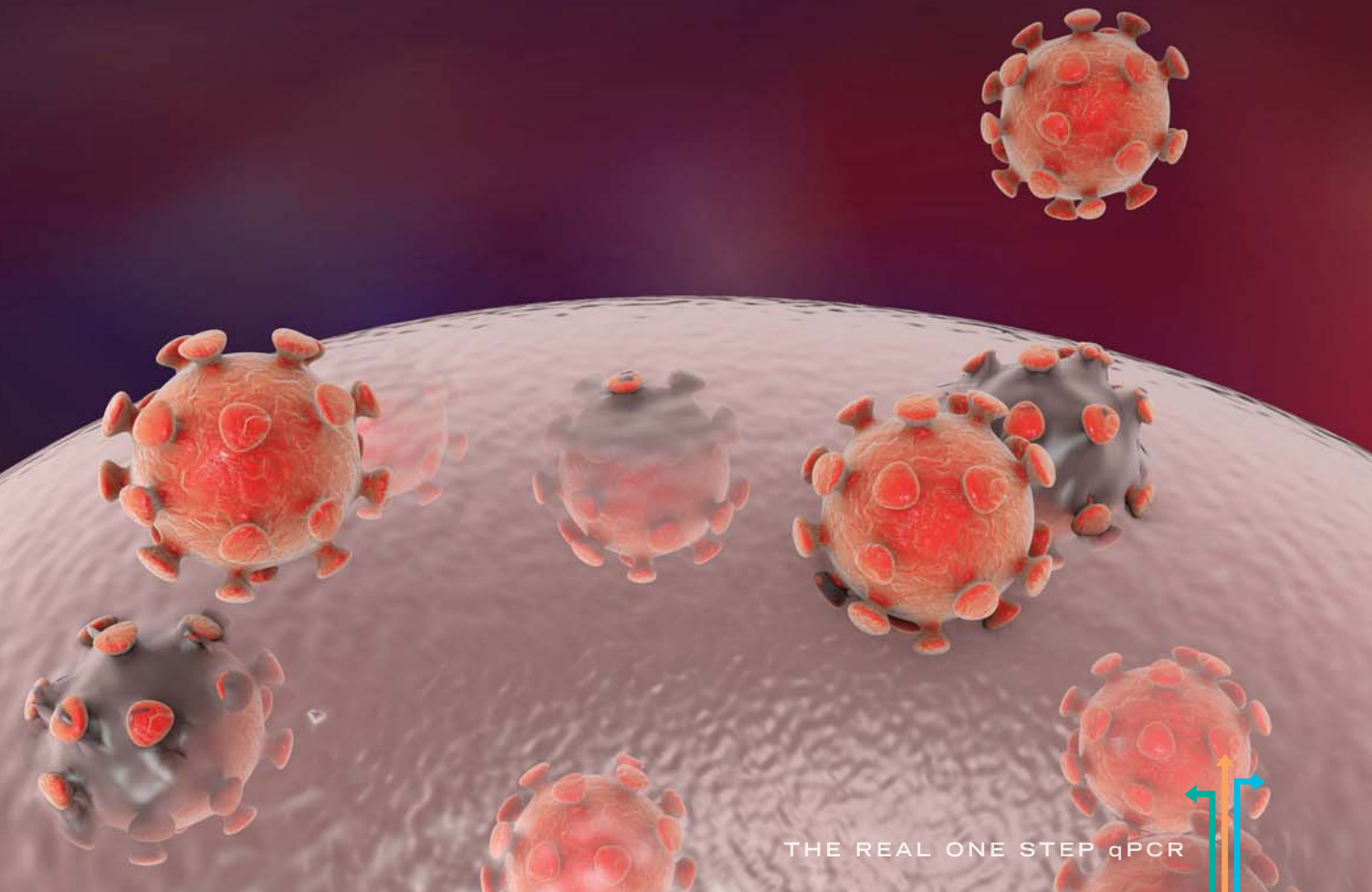
Parainfluenza viruses (PIV or HPIV in humans) belong to the *Paramyxoviridae* family and are divided genetically and antigenically into 4 types. All of them can cause respiratory infections in infants, children, and adults; although the location of the infection and some symptoms depend on the type. HPIV-1 and HPIV-2 both cause upper and lower respiratory illness, such as cold and croup, with HPIV-1 most often identified in children. HPIV-3 is more often associated with lower illness (bronchiolitis, bronchitis, and pneumonia) and HPIV-4 is recognized less often but may cause mild to severe respiratory illnesses. Most often, they aren't severe enough to cause concern in healthy adults; however, they can be life-threatening in infants, the immunocompromised, the chronically ill, and the elderly.

HPIV usually spread from an infected person to others through the air by coughing and sneezing, close personal contact or touching objects or surfaces that have HPIV on them and then touching their mouth, nose, or eyes. After you get

infected, it takes about 2 to 7 days before you develop symptoms.

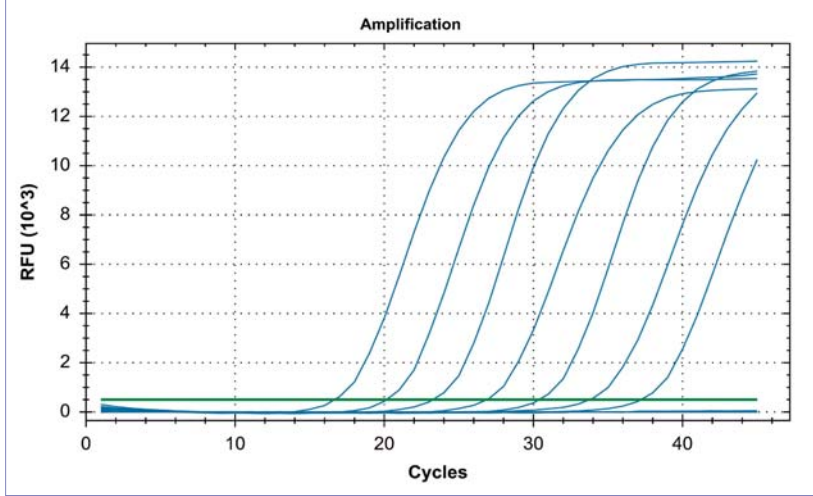
Viral culture in combination with immunofluorescence is the traditional method for diagnosis but it is time-consuming. Antigen detection test are widely used but they are less sensitive and specific than other diagnostics tools such as Real-time PCR assays, which currently are being considered one of the best method of choice.

VIASURE *Parainfluenza 1* Real Time PCR Detection Kit is designed for the diagnosis of Parainfluenza 1 in respiratory samples. The detection is done in one step real time RT format where the reverse transcription and the subsequent amplification of specific target sequence occur in the same reaction well. The isolated RNA target is transcribed generating complementary DNA by reverse transcriptase which is followed by amplification of a conserved region of the *hemagglutinin-neuraminidase* gene using specific primers and a fluorescent-labeled probe.



Analytical sensitivity

VIASURE Parainfluenza 1 Real Time PCR Detection Kit has a detection limit of ≥ 10 RNA copies per reaction.



Dilution series of Parainfluenza 1 (10^7 - 10^1 copies/rxn) template run on the Bio-Rad CFX96 Touch™ Real-Time PCR Detection System.

Components

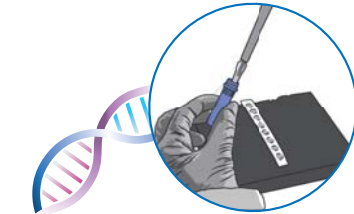
Reagent/Material	Description	Quantity
Parainfluenza 1 8-well strips	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format	6/12 x 8-well strip
Parainfluenza 1 96-well plate	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format	1 plate
Rehydration Buffer	Solution to reconstitute the stabilized product	1 vial x 1,8 mL
Parainfluenza 1 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-PIA106L	Viasure Parainfluenza 1 Real Time PCR Detection Kit 6 x 8-well strips, low profile
VS-PIA106H	Viasure Parainfluenza 1 Real Time PCR Detection Kit 6 x 8-well strips, high profile
VS-PIA112L	Viasure Parainfluenza 1 Real Time PCR Detection Kit 12 x 8-well strips, low profile
VS-PIA112H	Viasure Parainfluenza 1 Real Time PCR Detection Kit 12 x 8-well strips, high profile
VS-PIA113L	Viasure Parainfluenza 1 Real Time PCR Detection Kit 96-well plate, low profile
VS-PIA113H	Viasure Parainfluenza 1 Real Time PCR Detection Kit 96-well plate, high profile

Work Flow

One-step rehydration of wells and add your extracted RNA



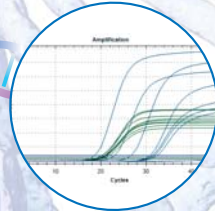
STEP 1
Add 15 μ l of rehydration buffer into each well



STEP 2
Add 5 μ l of RNA 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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