VIASURE MULTIPLEX

Adenovirus, Metapneumovirus & Bocavirus Real Time PCR Detection Kit

Pathogen and product description

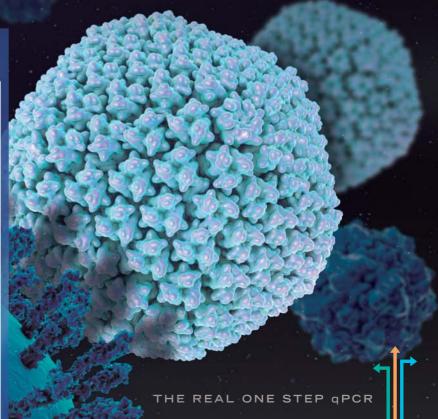
Adenoviruses belong to the *Adenoviridae* family. There are more than 50 immunologically distinct human Adenovirus serotypes that can cause human infections ranging from respiratory disease and conjunctivitis to gastroenteritis. Adenoviruses can be spread due to close personal contact or air transmission by coughing and sneezing. Manifestations include common cold, fever, sore throat (pharyngitis), bronchitis and pneumonia.

Human Metapneumoviruses belong to the *Paramyxoviridae* family and are important cause of upper and lower respiratory infection. Clinical symptoms include cough, fever, nasal congestion and shortness of breath, and may progress to bronchiolitis or pneumonia. Metapneumovirus is mainly transmitted by infectious airborne droplets, and it has been reported as the second most frequently found virus in respiratory infections, with children younger than five years being the most susceptible to infection.

Human Bocaviruses belong to the *Parvoviridae* family and are believed to be important causative agents of upper and lower respiratory tract infections in young children. Clinical manifestations range from mild upper respiratory tract infections to bronchiolitis, and lower respiratory tract diseases, such as pneumonia. The common symptoms are fever, cough, acute otitis media, tonsillitis and conjunctivitis, sinusitis and rhinorrhea.

VIASURE Adenovirus, Metapneumovirus & Bocavirus Real Time PCR Detection Kit is designed for the diagnosis of Adenovirus, Metapneumovirus and/or Bocavirus in respiratory samples. After DNA isolation, the identification of Adenovirus and Bocavirus is performed by the amplification of a conserved region of the hexon gene (Adenovirus) and the NS1 gene (Bocavirus) using specific primers and a fluorescentlabelled probe. After RNA isolation, the detection of Metapneumovirus is done in one step real time 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 the amplification of a conserved region of N gene of Metapneumovirus.







Analytical sensitivity

VIASURE Adenovirus, Metapneumovirus & Bocavirus Real Time PCR Detection Kit has a detection limit of ≥ 10 RNA/DNA copies per reaction (figures 1, 2 and 3).

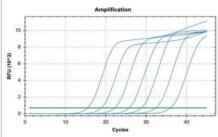


Figure 1. Dilution series of Adenovirus (10⁷−10¹ copies/rxn) template run on the Bio-Rad CFX96 Touch™ Real-Time PCR Detection System (FAM channel).

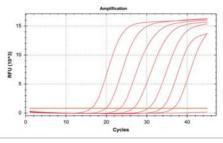


Figure 2. Dilution series of Metapneumovirus (10⁷−10¹ copies/rxn) template run on the Bio-Rad CFX96 Touch™ Real-Time PCR Detection System (ROX channel).

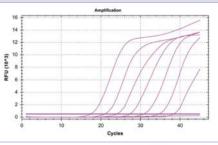


Figure 3. Dilution series of Bocavirus (10⁷−10¹ copies/rxn) template run on the Bio-Rad CFX96 Touch™ Real-Time PCR Detection System (Cy5 channel).

Components

Reagent/Material	Description	Colour	Amount
Adenovirus, Metapneumovirus & Bocavirus 8-well strips	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format	White	6/12 x 8-well strip
Rehydration Buffer	Solution to reconstitute the stabilized product	Blue	1 vial x 1,8 mL
Adenovirus, Metapneumovirus & Bocavirus Positive Control	Non-infectious synthetic lyophilized cDNA	Red	1 vial
Negative Control	Non template control	Violet	1 vial x 1 mL
Water RNAse/DNAse free	Water RNAse/DNAse free	White	1 vial x 1 mL
Tear-off 8-cap strips	Optical caps for sealing wells during thermal cycling	Transparent	6/12 x 8-cap strip

Kit References

Reference	Description
VS-AMB106L	VIASURE <i>Adenovirus, Metapneumovirus & Bocavirus</i> Real Time PCR Detection Kit 6 strips, Low
VS-AMB106H	VIASURE <i>Adenovirus, Metapneumovirus & Bocavirus</i> Real Time PCR Detection Kit 6 strips, High
VS-AMB112L	VIASURE <i>Adenovirus, Metapneumovirus & Bocavirus</i> Real Time PCR Detection Kit 12 strips, Low
VS-AMB112H	VIASURE <i>Adenovirus, Metapneumovirus & Bocavirus</i> Real Time PCR Detection Kit 12 strips, High
VS-AMB113L	VIASURE <i>Adenovirus, Metapneumovirus & Bocavirus</i> Real Time PCR Detection Kit 96-well plate, Low
VS-AMB113H	VIASURE <i>Adenovirus, Metapneumovirus & Bocavirus</i> Real Time PCR Detection Kit 96-well plate, High

Work Flow

One-step rehydration of wells and add your extracted RNA/DNA



Add 15 µl of rehydration buffer into each well





STEP 3 Load the strips into the thermocycler and run the specified protocol



STEP 4 Interpretate results





