VIASURE MULTIPLEX

Flu A, Flu B & RSV Real Time PCR Detection Kit

Pathogen and product description

Influenza viruses belong to the *Orthomyxoviridae* family and cause the majority of viral lower respiratory tract infections. Influenza A and B are a significant cause of morbidity and mortality worldwide, considering that elderly and compromised individuals are especially at risk of developing severe illness and complications such as pneumonia. People feel some or all of these symptoms: fever or feeling feverish/chills, cough, sore throat, nasal stuffiness and discharge, myalgia, headaches, and anorexia. The influenza viruses can be spread from person to person in two different ways: through the air (large droplets and aerosols from sneezing and coughing), and by direct or indirect contact.

Human respiratory syncytial viruses (RSV) belong to the *Paramyxoviridae* family and are the most important viral agents of acute respiratory infections. Respiratory syncytial virus is a common contributor of respiratory infections causing bronchitis, pneumonia and chronic obstructive pulmonary infections in people of all ages. People often feel some or all of these symptoms: rhinorrhea, low-grade fever, cough, sore throat, headache and wheezing. RSV is transmitted via large nasopharyngeal secretion droplets from infected individuals, close contact or self-inoculation after touching contaminated surfaces.

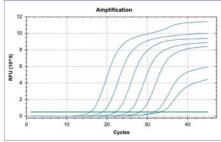
VIASURE Flu A, Flu B & RSV Real Time PCR Detection Kit is designed for the diagnosis of Flu A, Flu B and/or RSV in respiratory samples. The detection is done in one step real time RT format where the reverse transcription and the subsequent amplification of specific target sequence occur in the same 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 M1 gene for Flu A and Flu B and a conserved region of the N gene for RSV using specifics primers and a fluorescent-labeled probe.





Analytical sensitivity

VIASURE Flu A, Flu B & RSV Real Time PCR Detection Kit has a detection limit of ≥ 10 RNA copies per reaction for Flu A, Flu B and RSV (figures 1, 2 and 3).



E 3000 1000 1000 10 20 30 Cycles

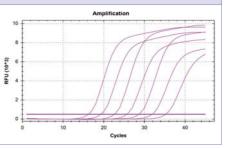


Figure 1. Dilution series of Flu A (10^7 – 10^1 copies/rxn) template run on the Bio-Rad CFX96 TouchTM Real-Time PCR Detection System (FAM channel).

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

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

Components

Reagent/Material	Description	Quantity
Flu A, Flu B & RSV 8-well strips	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format	6/12 x 8-well strip
Flu A, Flu B & RSV 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
Flu A, Flu B & RSV 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-ABR106L	VIASURE Flu A, Flu B & RSV Real Time PCR Detection Kit 6 x 8-well strips, low profile
VS-ABR106H	VIASURE <i>Flu A, Flu B & RSV</i> Real Time PCR Detection Kit 6 x 8-well strips, high profile
VS-ABR112L	VIASURE <i>Flu A, Flu B & RSV</i> Real Time PCR Detection Kit 12 x 8-well strips, low profile
VS-ABR112H	VIASURE <i>Flu A, Flu B & RSV</i> Real Time PCR Detection Kit 12 x 8-well strips, high profile
VS-ABR113L	VIASURE Flu A, Flu B & RSV Real Time PCR Detection Kit 96-well plate, low profile
VS-ABR113H	VIASURE Flu A, Flu B & RSV 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 µl of rehydration buffer into each well





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



STEP 4 Interpretate results



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