

Zika, Dengue & Chikungunya

➤ Zika (ZIKV), Dengue (DENV) and Chikungunya (CHIKV) are arthropod-borne viruses (arboviruses) that share mosquitos of the Aedes genus as common vector, specifically A. aegypti and A. albopictus. Environmental changes, urbanization and the globalization of travel have enhanced the spread of ZIKV, DENV and CHIKV resulting in epidemics and the co-circulation in overlapping geographic areas as well as the possibility of viral co-infection within a single host. Currently the major endemic regions include Africa, Southeast Asia, the Pacific Islands and the Americas.

Besides, these arboviruses cause similar clinical presentations, especially in the initial stages of infection (fever, headache, skin rash, muscle and join pain, and gastrointestinal symptoms). In fact, none of these virus virus possesses any specific distinguishing clinical features and the outcomes and management strategies for these three viruses are vastly different, an early and accurate diagnosis is imperative.

▶ Therefore, ZIKV, DENV and CHIKV must be initially included in the differential diagnosis for a patient with suspicious clinical symptoms who is living in or returning from an endemic area. Laboratory diagnostic tests are based on the detection of the virus, viral components (antigens or nucleic acid), or the host immunologic response to the virus. However, due to the cross-reactivity of the antibodies of these arboviruses limits the use of serology, Real Time RT-PCR is a detection method commonly used during the acute phase of the infection. In order to do that, different clinical specimens can be tested blood, serum, plasma, urine and others.



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VIASURE Zika, Dengue & Chikungunya Real Time PCR Detection Kit is designed for specific detection and differentiation of Zika, Dengue and/or Chikungunya viruses in clinical samples from patients with signs and symptoms of Zika, Dengue and/or Chikungunya viruses infection.

This test is intended for use as an aid in the diagnosis of the Zika, Dengue and/or Chikungunya viruses in combination with clinical and epidemiological risk factors.

RNA is extracted from specimens, amplified using RT-PCR and detected using fluorescent reporter dye probes specific for Zika, Dengue and Chikungunya viruses.

Analytical sensitivity

VIASURE Zika, Dengue & Chikungunya Real Time PCR Detection Kit has a detection limit of ≥10 RNA copies per reaction for ZIKV, DENV and CHIKV (Figure 1, 2 and 3).

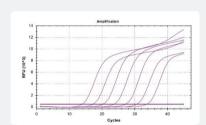


Figure 1.Dilution series of Zika Virus (107-101 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (channel

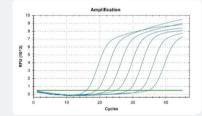


Figure 2.Dilution series of Dengue Virus (107-101 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (channel FAM).

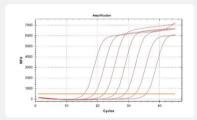


Figure 3.Dilution series of Chikungunya Virus (107-101 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (channel ROX).

▶ References - VIASURE Zika, Dengue & Chikungunya Real Real Time PCR Detection Kit

6 x 8-well strips, low profileVS-ZDC106L	6 x 8-well strips, high profileVS-ZDC106H
12 x 8-well strips, low profileVS-ZDC112L	12 x 8-well strips, high profileVS-ZDC112H
96-well plate, low profileVS-ZDC113L	96-well plate, high profileVS-ZDC13H
9 x 4-well strips, Rotor-Gene®VS-ZDC136	18 x 4-well strips, Rotor-Gene®VSZDC172

For more information and use procedure, read the instructions for use included in this product.



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