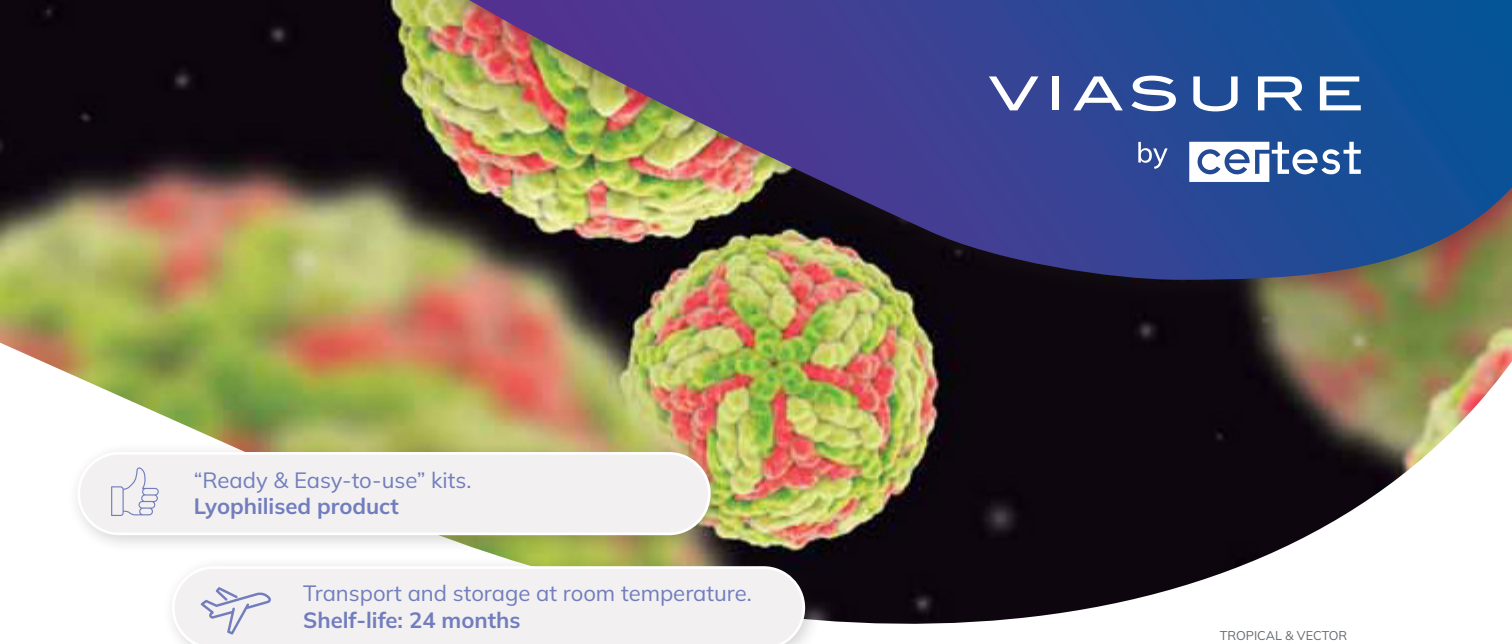
VIASURE
by certest



"Ready & Easy-to-use" kits.
Lyophilised product

Transport and storage at room temperature.
Shelf-life: 24 months

CE marked

TROPICAL & VECTOR BORNE DISEASES
JEV
MONOPLEX

Japanese encephalitis virus

- *Japanese encephalitis virus* (JEV) belongs to the family *Flaviviridae* and genus Flavivirus. JEV is transmitted by vectors, mosquitoes, and in particular, by the mosquito *Culex tritaeniorhynchus*. The infection cycle of JEV is zoonotic, the virus is amplified in pigs and birds are the reservoir. Other animals such as horses and humans can be infected by JEV (Roberts & Gandhi, 2020).

- After infection, several sudden symptoms that may appear are fiver, chills, myalgias, and mental confusion, and in child patients, the initial dominant and common symptoms are gastrointestinal pain and vomits (WHO | World Health Organization, n.d.). **JEV is the major cause of encephalitis in Asia, with an estimated 70,000 cases per year and around 20,000 deaths.** (Bharucha et al., 2018). JEV is considered to be endemic in many countries in Asia and Oceania, with recent reports of human and avian infections in Africa and Europe. (Bharucha et al., 2018).

- There are limitations to the diagnosis of JEV. Currently, detection of this pathogen is based on the molecular ELISA technique, by which anti-JEV IgM antibodies are detected from blood and/or cerebrospinal fluid samples. (Bharucha et al., 2018). **Detection of JEV infection is problematic due to the short viraemia period and asymptomatic (mostly) infections in patients.** These factors present a challenge in detecting the virus and also in selecting a test that is specific and does not give rise to cross-reactivity with flaviviruses such as Dengue. (Roberts & Gandhi, 2020). Therefore, the nucleic acid amplification techniques such as RT-qPCR are presented as an alternative and complement to the current techniques, due to their high sensitivity and ability to differentiate between JEV genotypes and other flaviviruses (Filgueira & Lannes, 2019; Roberts & Gandhi, 2020).

- **VIASURE *Japanese encephalitis virus* Real Time PCR Detection Kit** is designed for the qualitative detection of RNA from *Japanese encephalitis virus* in blood or CSF samples. The detection is done in one step real time RT-PCR 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 the NS5 gene using specific primer and a fluorescent–labelled probe.

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Japanese encephalitis virus

VIASURE *Japanese encephalitis virus* Real Time PCR Detection Kit is a real-time RT-PCR test designed for the qualitative detection of RNA of *Japanese encephalitis virus* in blood or cerebrospinal fluid (CSF) from patients with signs and symptoms of *Japanese encephalitis virus* infection.

This test is intended for use as an aid in the diagnosis of *Japanese encephalitis virus* infection disease, in combination with clinical and epidemiological risk factors.

RNA is extracted from clinical specimens. Complementary DNA (cDNA) is synthetised and amplified using real-time RT-PCR and detected using fluorescent reporter dye probes specific for *Japanese encephalitis virus*..

Analytical sensitivity

VIASURE *Japanese encephalitis virus* Real Time PCR Detection Kit showed a detection limit of ≥10 cDNA copies per reaction for *Japanese encephalitis virus*, with a positive rate of ≥95%.

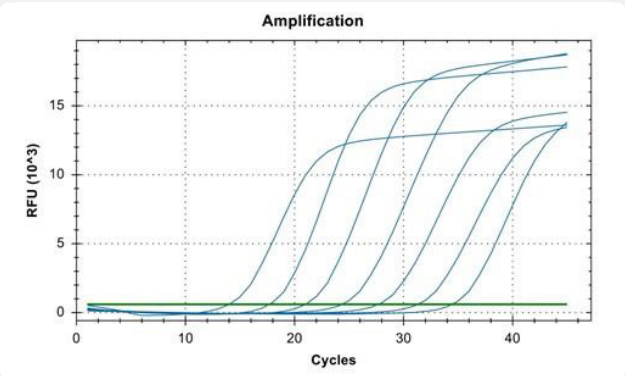

Figure 1.
Dilution series of Japanese encephalitis virus (10^7-10^1 copies/rxn) template run on the CFX96 ™ Real Time-PCR Detection System (Bio Rad) (FAM channel).

References - VIASURE *Japanese encephalitis virus* Real Time PCR Detection Kit

6 x 8-well strips, low profile	VS-JEV106L
12 x 8-well strips, low profile	VS-JEV112L
96-well plate, low profile	VS-JEV113L
1 x 8-well strips, low profile	VS-JEV101L
4 tubes x 24 reactions	VS-JEV196T
9 x 4-well strips, Rotor-Gene®	VS-JEV136
6 x 8-well strips, high profile	VS-JEV106H
12 x 8-well strips, high profile	VS-JEV112H
96-well plate, high profile	VS-JEV113H
1 x 8-well strips, high profile	VS-JEV101H
2 x 4-well strips, Rotor-Gene®	VS-JEV101
18 x 4-well strips, Rotor-Gene®	VS-JEV172

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

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