

# Recombinant Zika Virus (Suriname strain) Envelope Protein, His-tagged

**Cat. No.** ZIK-634    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Zika virus Envelope protein (E protein) has been manufactured in response to the unmet need for highly purified, concentrated antigen for use in serological based diagnostic assays. Recombinant Zika virus Envelope protein is engineered in human cells using state-of-the-art expression and purification techniques. The soluble domain of the Zika virus Envelope is expressed in HEK293 cells, and purified by IMAC and IEX chromatography.

### Tag

His

### Background

Zika virus (ZIKV) is a member of the Flavivirus genus of the family Flaviviridae that also includes global human pathogenic viruses Dengue virus (DENV), Yellow Fever virus, West Nile virus and Japanese encephalitis virus. Zika infection is an emerging disease caused by Zika virus, which is spread through the bite of infected Aedes mosquitoes. The Zika virus was first isolated in Central Africa but has since spread to South Asia and South America. The Zika virus can also be transmitted to individuals through sexual contact, blood product transfusion and organ transplant (WHO, 2018). Zika virus can also be transmitted to the foetus during pregnancy causing microcephaly (CDC).

Healthy individuals infected with Zika virus may remain asymptomatic or can experience mild fever, rash, myalgia, arthralgia and headaches. In addition, Zika virus infection in adults has been associated with neuropathy, myelitis and the neurological condition Guillain-Barre syndrome. Due to similar symptoms, Zika virus infection can be misdiagnosed as a Dengue virus infection and vice-versa. Currently, there are no

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vaccines available for the prevention of Zika virus. Therefore, accurate diagnosis of ZIKV is essential for patient management especially in regions where DENV and ZIKV co-circulate. However, ZIKV and DENV show structural and genetic similarities, and serological testing for the viruses can be complicated by problems of cross-reactivity.

|                        |                                                                                                                                                                                                                                                  |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>          | >95% pure by SDS-PAGE                                                                                                                                                                                                                            |
| <b>Sequence Strain</b> | Suriname Z1106033                                                                                                                                                                                                                                |
| <b>Formulation</b>     | 20mM NaH <sub>2</sub> PO <sub>4</sub> pH 7.8, 210mM NaCl                                                                                                                                                                                         |
| <b>Freezing</b>        | Can be frozen, but avoid multiple freeze/thaw cycles.                                                                                                                                                                                            |
| <b>Storage</b>         | Short Term Storage: +4 centigrade to -20 centigrade<br>Long Term Storage: -80 centigrade                                                                                                                                                         |
| <b>Concentration</b>   | 0.417 mg/mL                                                                                                                                                                                                                                      |
| <b>Notes</b>           | This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations. |
| <b>Type</b>            | Recombinant                                                                                                                                                                                                                                      |
| <b>ClassID 1</b>       | Infectious Disease                                                                                                                                                                                                                               |

## GENE INFORMATION

|                 |                                       |
|-----------------|---------------------------------------|
| <b>Synonyms</b> | Zika Virus Envelope (Suriname strain) |
|-----------------|---------------------------------------|

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