

# Recombinant ZIKV (Strain Zika SPH2015) E (Envelope) Protein (Ile291-Thr696) (Thr356Ala, Gln357Gly, Trp381Arg, Leu387Arg), His-tagged

**Cat. No.** E-772Z    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <b>Product Overview</b> | Recombinant ZIKV (Zika virus) (Strain Zika SPH2015) E (Envelope) Protein (ALU33341.1, with mutation Thr 356 Ala, Gln 357 Gly, Trp 381 Arg, Leu 387 Arg) (Ile291-Thr696) was produced by Baculovirus-Insect Cells expression system. This protein was expressed with a polyhistidine tag at the C-terminus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species</b>          | Zika                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Source</b>           | Insect Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>ProteinLength</b>    | Ile291-Thr696                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>      | Envelope of Zika virus is responsible for receptor binding and membrane. Analysis of the envelope protein of Zika, from Brazilian Zika SPH215 (KU321639), indicates predicted B and T cell epitopes in peptides that are consistent to those reported for dengue, YFYF and Japanese encephalitis. The envelope Domain II B cell epitope, to which much dengue non-neutralizing cross reaction is attributed, is also conserved also in Zika virus, consistent with prior field observations of cross reactivity with dengue and YF. Domain III of the Zika envelope protein, likely the main specific neutralizing domain, is distinct from recent Brazilian dengue isolates and a recent Peruvian YF isolate (GQ379163), 76% of possible major histocompatibility complex class (MHC) I and MHC II binding peptides and potential B cell linear epitopes are unique to Zika virus. |

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| <b>Predicted N Terminal</b> | Ile 291                                                                                                                                                                                                                                                      |
| <b>Form</b>                 | Lyophilized from sterile 20 mM Tris, 300 mM NaCl, pH 8.0, 10 % glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.                                                                            |
| <b>Molecular Mass</b>       | The recombinant Zika virus (strain Zika SPH2015) E consists of 417 amino acids and predicts a molecular mass of 45.6 kDa.                                                                                                                                    |
| <b>Endotoxin</b>            | < 1.0 EU per µg protein as determined by the LAL method.                                                                                                                                                                                                     |
| <b>Purity</b>               | > 90 % as determined by SDS-PAGE.                                                                                                                                                                                                                            |
| <b>Stability</b>            | Samples are stable for up to twelve months from date of receipt at -70 centigrade.                                                                                                                                                                           |
| <b>Storage</b>              | Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.                                                                               |
| <b>Reconstitution</b>       | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.                                                                                |
| <b>Shipping</b>             | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |