

Zika virus (ZIKV) (strain Zika SPH2015) ZIKV-E / Envelope protein (Domain III, Fc Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 40543-V02H

General Information

Gene Name Synonym:

ZIKV-E

Protein Construction:

A DNA sequence encoding the Zika virus (strain Zika SPH2015) E / Envelope (domain III) (ALU33341.1) (Val593-Lys699) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: ZIKV

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE.

Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Val 593

Molecular Mass:

The recombinant Zika virus (strain Zika SPH2015) E / Envelope (domain III) consists of 345 amino acids and predicts a molecular mass of 38.2 kDa.

Formulation:

Lyophilized from sterile PBS, pH7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

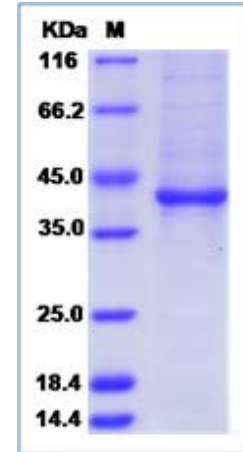
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Envelope of Zika virus is responsible for receptor binding and membrane. Analysis of the envelope protein of Zika, from Brazilian Zika SPH2015 (KU321639), indicates predicted B and T cell epitopes in peptides that are consistent to those reported for dengue, YFV 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.

References

1. Marina Basarab specialty registrar. et al. Zika virus. BMJ 2016; 352:i1049 doi: 10.1136/bmj.i1049
2. Pinto Júnior VL, et al. Zika virus: a review to clinicians, Acta Med Port 2015 Nov-Dec;28(6):760-765
3. L Zammarchi, et al. Zika virus infection in a traveler returning to Europe from Brazil, March 2015

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