# Recombinant Viral Japanese Encephalitis virus Envelope Fc Chimera

Catalog Number: 9449-JV

## DESCRIPTION

**Source** Human embryonic kidney cell, HEK293-derived

| Viral Japanese Encephalitis virus Envelope (Phe295-Leu746) Accession # P32886 | IEGRMD | Human $IgG_1$ (Pro100-Lys330) |
|---|---|---|
| N-terminus | | C-terminus |

| | |
|---|---|
| **N-terminal Sequence Analysis** | Phe295 |
| **Structure / Form** | Disulfide-linked homodimer |
| **Predicted Molecular Mass** | 75 kDa |

## SPECIFICATIONS

| | |
|---|---|
| **SDS-PAGE** | 73-83 kDa, reducing conditions |
| **Activity** | Bioassay data are not available. |
| **Endotoxin Level** | <1.0 EU per 1 µg of the protein by the LAL method. |
| **Purity** | >80%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining. |
| **Formulation** | Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details. |

## PREPARATION AND STORAGE

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|---|---|
| **Reconstitution** | Reconstitute at 500 µg/mL in PBS. |
| **Shipping** | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 3 months, -20 to -70 °C under sterile conditions after reconstitution. |

## DATA

**Bioactivity not tested**


**The Innovator Series.** R&D Systems proteins are almost always sold with a bioassay to indicate activity. However, we recognize that sometimes proteins might be novel, and their bioactivity may not be well understood. In addition, some researchers may wish to use polypeptides to make antibodies. To facilitate the advancement of new science, we now offer our Innovator Series of proteins.

## BACKGROUND

JEV_E is the envelope protein E produced by the Japanese encephalitis virus (JEV), a mosquito-borne flavivirus that is the sole agent of Japanese encephalitis (1). Members of this family of viral pathogens have a single, positive-strand RNA genome approximately 11 kb that encodes seven non-structural, and three structural proteins: capsid (C), precursor to membrane (prM) and envelope (E). The JEV_E protein consists of 500 aa that include two transmembrane helices, and there is ~40% aa identity among the flavivirus E proteins (2). The E protein is an approximately 53 kDa elongated protein that contains cellular receptor-binding sites and fusion peptide and is mainly responsible for interaction with the host cell, infectivity, and entry of the virus (2-6).

**References:**


1. Banerjee, S. *et al.* (2017) BMC Immunol. **18**:13.
2. Mukhopadhyay, S. *et al.* (2005) Nat. Rev. Microbiol. **3**:13.
3. Lorenz, I.C. *et al.* (2002) J. Virol. **76**:5480.
4. Allison, S.L. *et al.* (2001) J. Virol. **75**:4268.
5. Liu, H. *et al.* (2015) J. Virol. **89**:5668.
6. Yang, J. *et al.* (2017) Viruses **9**:20.




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