
Product Data Sheet

Product Name: Chikungunya E1

Cat. No.: GP25472

Batch No.: 1

Product Data

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|---------------------|---|--------------------|-------------------------|
| Purity | >98% | Source | Insect cells. |
| Physical Appearance | solid | Shipping Condition | Shipped with Ice Packs. |
| Formulation | CHIKV E1 protein solution in 1xD-PBS, pH7.4, 0.1% Thimerosal, 5mM EDTA, 1µg/ml of Leupeptin, and Pepstatin A. | | |

Introduction

Chikungunya is an infection caused by the chikungunya virus which is passed to humans by two species of mosquito of the genus *Aedes*: *A. albopictus* and *A. aegypti*. Animal reservoirs of the virus include monkeys, birds, cattle, and rodents. The features of the disease are a sudden onset of fever 2-4 days after exposure. The fever typically lasts 2-7 days, while the associated joint pains usually last weeks or months but sometimes years. The mortality rate is a little less than 1 in 1,000. The disease has occurred in outbreaks in Asia, Europe and the Americas since 2004. CHIKV is a single-stranded positive-sense RNA genome, 11,800 nts long which encodes 2 open reading frames. The nucleocapsid is tightly enveloped by a host-derived lipid bilayer (envelope) supporting the virus-encoded envelope proteins. 80 glycoprotein spikes are C-terminally anchored within the viral envelope. The structural polyprotein is translated from a viral sub genomic mRNA, while as the 5 structural proteins (capsid, E3, E2, 6K, E1) are translated as a single polyprotein, from which capsid (C) is cleaved off to encapsidate. The envelope polyprotein precursor E3-E2-6K-E1 is translocated to the endoplasmic reticulum. Polyprotein is processed by host signalases, resulting in E3, E2 & E1 forming viral hetero-trimeric spikes. The viral spikes majorly contains E2 and E1 facilitate cell receptor recognition, cell entry thru pH-dependent endocytosis and support viral budding.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Caution: Product has not been fully validated for medical applications. For research use only.

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Background

Recombinant Chikungunya Wild Type E1 produced in Insect Cells is a polypeptide chain containing amino acids 1-415 and having a molecular weight of approximately 50kDa. CHIKV E1 is purified by proprietary chromatographic technique.

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