

Product Data Sheet

Product Name: CHIKV E1
 Cat. No.: GP25474
 Batch No.: 1

Product Data

Purity >98%

Source

Physical Appearance solid

Shipping Condition

Amino Acid Sequence PNTVGVVPYKTLVNRPGYSPMVLEMELLSVTLEPTLSLDYITCEYKTVIPSPYVKCCGTAECKDKSLPDYSCKVFTGVYPFMWGGAYCFCDTENTQLSEAH

Formulation Sterile Filtered solution containing PBS.

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

CHIKV E1 although stable at 4°C for 1 week, should be stored below -18°C. Please prevent freeze thaw cycles.

Background

Recombinant Chikungunya E1 produced in E.coli having a molecular weight of 48kDa.

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

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