

## 32-13619: CHIKV E1

### Alternative Name :

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.

### Description

Source: Escherichia Coli.

Sterile filtered colorless solution.

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.

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

### Product Info

<b>Amount :</b>	100 µg / 0.5 mg
<b>Purification :</b>	Protein is >90% pure as determined by SDS-PAGE.
<b>Content :</b>	Sterile Filtered solution containing PBS.
<b>Storage condition :</b>	CHIKV E1 although stable at 4°C for 1 week, should be stored below -18°C. Please prevent freeze thaw cycles.
<b>Amino Acid :</b>	PNTVGVPYKTLVNRPGYSPMVLEMELLSVTLEPTLSLDYITCEYKTVIPSPYVKCCGTAECKDKSLPDYSC KVFTGVYPPFMWGGAYCFCDTENTQLSEAHVEKSESCKTEFASAYRAHTASAKLRVLYQGNNVTVSAY ANGDHAFTVKDAKFIVGPMSSAWTPFDNKIVVYKGDVYNMDYPPFGAGRPGQFGDIQSRTPESEDVYAN TQLVLQRPSAGTVHVPYSQAPSGFKYWLKERGASLQHTAPFGCQIATNPVRAMNCAVGNMPISIDIPDAAF TRVVDAPSLTDMSCVEPACTHSSDFGGVAILIYAASKKGKCAVHSMNTNAVITIREAEIEVEGNSQLQISFSTAL ASAEFRVQVCSTQVHCAAECCHPPKDHIVNYPASHTTLGVQDISVTAMSWVQKITG