9051 Mira Mesa Blvd, #910094
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CHIKV Mutant

Chikungunya Mutant (A226V) E1 Recombinant
VAG0040

Product Overview

Name	CHIKV Mutant
Description	
Chikungunya Mutant (A226V) E1 Recombinant	
Accession (Primary)	G0LWX6

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 endoplasmatic 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.

Source

Insect cells.

Physical Appearance

Sterile filtered colorless solution.

Formulation

CHIKV Mutant protein solution in 1xD-PBS, pH7.4, 0.1% Thimerosal, 5mM EDTA, 1 µg/ml of Leupeptin, Aprotinin and Pepstatin A.

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.

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Purity

Protein is > 95% pure as determined by 12.5% SDS-PAGE.

Amino acid sequence

YEHVTVIPNTVGVPYKTLVNRPGYSPMVLEMELLSVTLEPTLSLDYITCEYKTVIPSPYVKCC

GTAECKDKNLPDYSCKVFTGVYPFMWGGAYCFCDAENTQLSEAHVEKSESCKTEFASAYRAHT

ASASAKLRVLYQGNNITVTAYANGDHAVTVKDAKFIVGPMSSAWTPFDNKIVVYKGDVYNMDYP

PFGAGRPGQFGDIQSRTPESKDVYANTQLVLQRPAVGTVHVPYSQAPSGFKYWLKERGASLQHT

APFGCQIATNPVRAVNCAVGNMPISIDIPEAAFTRVVDAPSLTDMSCEVPACTHSSDFGGVAII

KYAASKKGKCAVHSMTNAVTIREAEIEVEGNSQLQISFSTALASAEFRVQVCSTQVHCAAECHP

PKDHIVNYPASHTTLGQDISATAMSWVQKITGG.

Precautions

CHIKV Mutant is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (G0LWX6)