

Recombinant Chikungunya CHIKVgp2 protein

Cat. No. CHIKVgp2-27C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Chikungunya Mutant (A226V) E1 produced in Insect Cells is a polypeptide chain containing amino acids 1-415, however at position 226 the Alanine of the wild-type CHIKV E1 gene was mutated to Valine. The molecular weight of the CHIKV Mutant is approximately 50kDa. The E1 protein is C-terminal part of E2-6K-E1 protein region. CHIKV Mutant is purified by proprietary chromatographic technique.
Species	Chikungunya
Source	Insect Cells
ProteinLength	amino acids 1-415
Description	Chikungunya virus (CHIKV) is an arthropod-born virus which is a member of the Alphavirus genus belonging to the Togaviridae family. CHIKV nucleocapsid is comprised of a single-stranded plussense RNA genome of approximately 11.8 kb. The CHIKV virion envelope consists of a lipid bilayer derived from the plasma membrane from the host cell, multiple copies of 2 major virus encoded glycoproteins E1 and E2, and a small 6K peptide. Proteins E1 and E2 both have a molecular weight of roughly 50kDa and form a heterodimer anchored in the membrane. Chikungunya virus infection causes an illness with symptoms similar to those of the dengue fever with an acute febrile phase lasting only 2-5 days, followed by a prolonged arthralgic disease affecting the joint extremities. Recent Chikungunya virus outbreaks presented a prospect for genetic analysis of patients with the illness, revealing a point mutation at the amino acid 226 (Ala mutated to Val) of the E1 gene. This point

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	mutation was confirmed to be responsible for an improved capacity of CHIKV strains to infect and replicate in the Aedes albopictus, enabling virus transmission to a naive human population.
Form	Sterile filtered colorless solution. CHIKV Mutant protein solution in 1xD-PBS, pH7.4, 0.1% Thimerosal, 5mM EDTA, 1g/ml of Leupeptin, Aprotinin and Pepstatin A.
Molecular Mass	50kDa
AA sequence	YEHVTVIPNTVGVVPYKTLVNRPGYSPMVLEMELLSVTLEPTLSLDYITCEYKTVIPSPY VKCCGTAECKDKNLPDYSCKVFTGVYPFMWGGAYCFDAENTQLSEAHVEKSESC KTEFASAYRAHTASASAKLRVLYQGNNITVTAYANGDHAHTVKDAKFIVGPMSSAWT PFDNKIVVYKGDVYNMDYPPFGAGRPGQFGDIQSRTPESKDVYANTQLVLQRPVAVG TVHVPYSQAPSGFKYWLKERGASLQHTAPFGCQIATNPVRAVNCAVGNMPISIDIPE AAFTRVVDAPSLTDMSCVPACTHSSDFGGVAIIKYAASKKGKCAVHSMNTNAVITIRE AEIEVEGNSQLQISFSTALASAEFRVQVCSTQVHCAAECHPPKDHIVNYPASHTTLG QDISATAMSWVQKITGG.
Purity	Protein is >95% pure as determined by 12.5% SDS-PAGE.
Usage	The products are furnished for LABORATORY RESEARCH USE ONLY. They may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.
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.
Shipping	Ice Packs

GENE INFORMATION

Gene Name	CHIKVgp2 contains C, E3, E2, 6K, and E1 proteins [Chikungunya virus]
Official Symbol	CHIKVgp2
Synonyms	CHIKVgp2; contains C, E3, E2, 6K, and E1 proteins; E1 envelope glycoprotein; Structural polyprotein
Gene ID	956308
Protein Refseq	NP_690589.2

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