# Recombinant Chikungunya CHIKVgp2 protein

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

## SPECIFICATION

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| **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 |

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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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, 1μg/ml of Leupeptin, Aprotinin and Pepstatin A. |
| **Molecular Mass** | 50kDa |
| **AA sequence** | YEHVTVIPNTVGVPYKTLVNRPGYSPMVLEMELLSVTLEPTLSLDYITCEYKTVIPSPY VKCCGTAECKDKNLPDYSCKVFTGVYPFMWGGAYCFCDAENTQLSEAHVEKSESC KTEFASAYRAHTASASAKLRVLYQGNNITVTAYANGDHAVTVKDAKFIVGPMSSAWT PFDNKIVVYKGDVYNMDYPPFGAGRPGQFGDIQSRTPESKDVYANTQLVLQRPAVG TVHVPYSQAPSGFKYWLKERGASLQHTAPFGCQIATNPVRAVNCAVGNMPISIDIPE AAFTRVVDAPSLTDMSCEVPACTHSSDFGGVAIIKYAASKKGKCAVHSMTNAVTIRE 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.<br>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 |

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## GENE INFORMATION

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| **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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