Recombinant Bundibugyo ebolavirus GP Protein, C-His-tagged

Cat. No. GP-03E **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Ebola virus envelope glycoprotein (GP1) is derived from the GP1 sequence, expressing Ile33-Gln304.This Ebola virus envelope glycoprotein (GP1) is fused with a polyhistidine tag at the C-terminus, and has a calculated MW of 31.8 kDa. The protein is expressed in HEK293 cells with a C-terminal His-tag.
Species	Bundibugyo ebolavirus
Source	HEK293
ProteinLength	33-304aa
Description	Ebola virus envelope glycoprotein is initially produced as a precursor known as pre-GP, which is cleaved by furin into two subunits, GP1 and GP2, which remain associated through a disulfide linkage between Cys53 of GP1 and Cys609 of GP2. This heterodimer assembles into a 450-kDa trimer at the surface of nascent virions. The virion-attached GP is critical in the EBOV life cycle, as it is solely responsible for attachment, fusion and entry of target cells. Moreover, GP is responsible for critical pathogenic differences among viral species.The role of Ebola virus envelope glycoprotein in EBOV pathogenesis is unclear, but is examined in detail by Lee and Saphire (2009). Ebola hemorrhagic fever (EHF) is a severe disease caused by several species of Ebolavirus (EBOV), in the family Filoviridae. Prior to 2007, four species of EBOV had been identified, with two (Zaire ebolavirus andSudan ebolavirus) having caused significant disease outbreaks in humans. Outbreaks of EHF are associated with

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	person-to-person transmission after the virus is introduced into humans from a zoonotic reservoir. During outbreaks the virus is commonly transmitted through direct contact with infected persons or their bodily fluids. The onset of EHF is associated with nonspecific signs and symptoms, including fever, myalgias, headache, abdominal pain, nausea, vomiting, and diarrhoea. In the later stages of disease, overt hemorrhage has been reported in up to 50% of cases. The presence of a fifth EBOV virus species, Bundibugyo ebolavirus (BEBOV) was identified after an outbreak of EHF in the Bundibugyo District of western Uganda in 2007.
Form	Lyophilised and presented in PBS pH7.4.
Molecular Mass	A calculated MW of 31.8 kDa. The protein is expressed in HEK293 cells. DTT-reduced Protein migrates as 40-60 kDa in SDS-PAGE.
Purity	>90% pure by SDS-PAGE
Stability	Stability before reconstitution: At ambient temperature: 1 month; At 4 centigrade: 12 months; At <-20 centigrade: 24 months Stability after reconstitution: At -80°C: 3 months Freezing: Can be frozen, but avoid multiple freeze/thaw cycles
Storage	Store lyophilised product at 4 centigrade for short term, or frozen at -20 centigrade to -80 centigrade for long term. Product is shipped at ambient temperature.
Concentration	Dependent upon reconstitution volume.
Storage Buffer	DPBS pH 7.4.

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Reconstitution	It is recommended to reconstitute the protein by adding 500µsterile water to a stock solution of 200µg/ml. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. We recommend the addition of carrier protein (0.1% (w/v) BSA) for further dilution and long-term storage.

GENE INFORMATION

Gene Name	GP second secreted glycoprotein;small secreted glycoprotein;spike glycoprotein [Bundibugyo ebolavirus]
Official Symbol	GP
Gene ID	9487265
Protein Refseq	YP_003815435.1
UniProt ID	B8XCN0

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