Recombinant Bundibugyo ebolavirus GP, Fc-tagged

Cat. No. GP-26B **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the Bundibugyo ebolavirus(strain Uganda 2007) GP (Met1-Val308) was expressed with the Fc region of human IgG1 at the C-terminus.
Species	Bundibugyo ebolavirus
Source	Human Cells
ProteinLength	1-308 a.a.
Description	The fourth gene of the EBOV genome encodes a 160-kDa envelope-attached glycoprotein (GP) and a 110 kDa secreted glycoprotein (sGP). Both GP and sGP have an identical 295-residue N-terminus, however, they have different C-terminal sequences. Recently, great attention has been paid to GP for vaccines design and entry inhibitors isolation. GP is a class I fusion protein which assembles as trimers on viral surface and plays an important role in virus entry and attachment. Mature GP is a disulfide-linked heterodimer formed by two subunits, GP1 and GP2, which are generated from the proteolytical process of GP precursor (pre-GP) by cellular furin during virus assembly . The GP1 subunit contains a mucin domain and a receptor-binding domain (RBD); the GP2 subunit has a fusion peptide, a helical heptad-repeat (HR) region, a transmembrane (TM) domain, and a 4-residue cytoplasmic tail. The RBD of GP1 mediates the interaction of EBOV with cellular receptor (e.g. DC-SIGN/LSIGN, TIM-1, hMGL, NPC1, β-integrins, folate receptor-α, and Tyro3 family receptors), of which TIM1 and NPC1 are essential for EBOV entry; the mucin domain having N- and O-linked glycans enhances the viral attachment to cellular hMGL, and

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	participates in shielding key neutralization epitopes, which helps the virus evades immune elimination. There are large conformation changes of GP2 during membrane fusion, which enhance the insertion of fusion loop into cellular membrane and facilitate the release of viral nucleocapsid core to cytoplasm.
Predicted N Terminal	Ile 33
Form	Lyophilized from sterile PBS, pH 7.4.
Molecular Mass	The recombinant Bundibugyo ebolavirus(strain Uganda 2007) GP consists 514 amino acids and predicts a molecular mass of 57.6 kDa.
Endotoxin	< 1.0 eu per μg protein as determined by the lal
Purity	>95 % as determined by SDS-PAGE
Stability	Samples are stable for up to twelve months from date of receipt at -70oC.
Storage	Store it under sterile conditions at -20oC to -80oC. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products.?
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

Gene Name	GP?second secreted glycoprotein [?Bundibugyo ebolavirus?]

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Official Symbol	GP
Synonyms	GP; EBOV-G; Glycoprotein; second secreted glycoprotein; small secreted glycoprotein; spike glycoprotein; YP_003815435.1; cleaved by furin into subunits GP1 and GP2 to yield a heterodimer linked by a disulfide bond; YP_003815436.1; small non-structural secreted glycoprotein; sGP
Gene ID	9487265
Protein Refseq	YP_003815436

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