

EBOV Glycoprotein/GP-RBD Recombinant Protein | EBOV-G recombinant protein

Ebola virus EBOV (subtype Zaire, strain H.sapiens-wt/GIN/2014/Kissidougou-C15) Glycoprotein/GP-RBD Protein (His Tag)

CATALOG #
AAA258073

HOST
HEK293 Cells

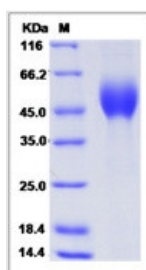
PRODUCT SYNONYMS

EBOV Glycoprotein/GP-RBD; Ebola virus EBOV (subtype Zaire; strain H.sapiens-wt/GIN/2014/Kissidougou-C15) Glycoprotein/GP-RBD Protein (His Tag); EBOV-G recombinant protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. 5% trehalose, 5% mannitol and 0.01% Tween80.
Species	EBOV
Endotoxin	<1.0EU per ug protein as determined by the LAL method.
Predicted N Terminal	Ile 33
Tag	C-His
Reconstitution	It is recommended that sterile water (400ul) be added to the vial to prepare a stock solution of 0.25mg/mL. Concentration is measured by UV-Vis.
Protein Construction	A DNA sequence encoding the Zaire ebolavirus(strain H.sapiens-wt/GIN/2014/Kissidougou-C15) GP (AHX24649.1) (Met1-Phe308) was expressed with a polyhistidine tag at the C-terminus.
Preparation and Storage	Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for EBOV-G recombinant protein	Protein 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, ?-integrins, folate receptor-?, 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 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.
References	Volchkov VE, et al. Processing of the Ebola virus glycoprotein by the proprotein convertase furin. Proc Natl Acad Sci U S A. 1998 May 12;95(10):5762-7. Lee JE, et al. Structure of the Ebola virus glycoprotein bound to an antibody from a human survivor. Nature. 2008 Jul 10;454(7201):177-82. doi: 10.1038/nature07082. Hood CL, et al. Biochemical and structural characterization of cathepsin L-processed Ebola virus glycoprotein: implications for viral entry and immunogenicity. J Virol. 2010 Mar;84(6):2972-82. doi: 10.1128/JVI.02151-09. Cook JD and Lee JE. The secret life of viral entry glycoproteins: moonlighting in immune evasion. PLoS Pathog. 2013 May;9(5):e1003258. doi: 10.1371/journal.ppat.1003258. Miller EH and Chandran K. Filovirus entry into cells - new insights. Curr Opin Virol. 2012 Apr;2(2):206-14. doi: 10.1016/j.coviro.2012.02.015.

NCBI AND UNIPROT INFORMATION

Molecular Weight	The recombinant Zaire ebolavirus (strain H.sapiens-wt/GIN/2014/Kissidougou-C15) GP consists 287 amino acids and predicts a molecular mass of 32.3kDa.
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For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/ebov-glycoprotein/gp-rbd-recombinant-protein-hek293/258073>