

Datasheet for ABIN7198929

ZEBOV GP Protein**1** Image[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	ZEBOV GP
Origin:	Ebola Virus
Source:	HEK-293 Cells
Protein Type:	Recombinant

Product Details

Purpose:	Recombinant EBOV (subtype Zaire, strain Mayinga 1976) GP-RBD / Glycoprotein Protein
Sequence:	Met1-Phe308
Characteristics:	A DNA sequence encoding the Zaire ebolavirus (strain Mayinga 1976) GP (AAC54887.1) (Met1-Phe308) was expressed with five amino acids (DDDDK) at the C-terminus.
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg protein as determined by the LAL method.

Target Details

Target:	ZEBOV GP
Alternative Name:	ZEBOV GP (ZEBOV GP Products)
Background:	The fourth gene of the EBOV genome encodes a 16- kDa envelope-attached glycoprotein (GP) and a 11 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

Target Details

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 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.

Molecular Weight:	31.5kDa
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Application Details

Restrictions:	For Research Use only
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Handling

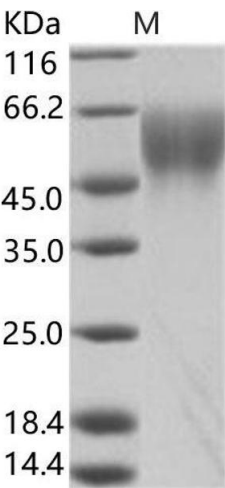
Format:	Lyophilized
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Reconstitution:	Please refer to the printed manual for detailed information.
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Buffer:	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
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Storage:	4 °C,-20 °C,-80 °C
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Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
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Western Blotting

Image 1.