Datasheet for ABIN7198902

BEBOV GP Protein (His tag)

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Overview

Quantity:	100 µg
Target:	BEBOV GP
Origin:	Ebola Virus
Source:	Baculovirus infected Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This BEBOV GP protein is labelled with His tag.

Product Details

Purpose:	Recombinant EBOV (subtype Bundibugyo, strain Uganda 2007) GP1 / Glycoprotein Protein (His Tag)
Sequence:	Met1-Arg501
Characteristics:	A DNA sequence encoding the Bundibugyo ebolavirus (strain Uganda 2007) GP (ACI28624.1) (Met1-Arg501) was expressed with a polyhistidine tag 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:	BEBOV GP
Alternative Name:	BEBOV GP (BEBOV 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-

Target Details

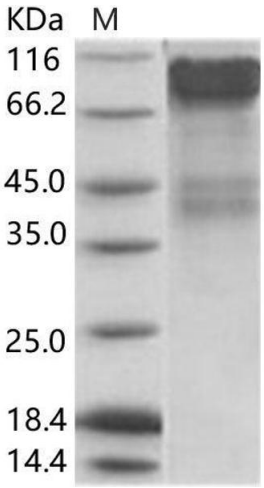
	terminus, however, they have different C-terminal sequences. Recently, great attention has been paid to GP for vaccines design and entry inhibitors isolation. GP is a class I fusion protein which assembles as trimers on viral surface and plays an important role in virus entry and attachment. Mature GP 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 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:	53.5kDa

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile 20 mM Tris, 500 mM NaCl, 10 % glycerol, 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.
Storage:	4 °C,-20 °C,-80 °C
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.



Western Blotting

Image 1.