

## Datasheet for ABIN7198919 SEBOV GP Protein (His tag)



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### 1 Image

#### Overview

Quantity:	100 µg
Target:	SEBOV GP
Origin:	Ebola Virus
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SEBOV GP protein is labelled with His tag.

#### Product Details

Purpose:	Recombinant EBOV (subtype Sudan, strain Gulu) GP / Glycoprotein Protein (His Tag)
Sequence:	Met1-Asn637
Characteristics:	A DNA sequence encoding Sudan ebolavirus (strain Gulu) GP (YP_138523.1) (Met1-Asn637) 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:	SEBOV GP
Alternative Name:	SEBOV GP ( <a href="#">SEBOV GP Products</a> )
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

## Target Details

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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,  $\beta$ -integrins, folate receptor- $\alpha$ , 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.

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Molecular Weight: 67.9kDa

NCBI Accession: [YP\\_138523](#)

## Application Details

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Restrictions: For Research Use only

## Handling

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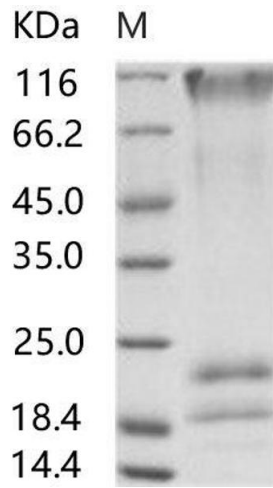
Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

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.

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.**