

# Recombinant Ebolavirus BDBV(subtype Bundibugyo, strain Uganda 2007) Small/secreted Glycoprotein (sGP) protein, His-tagged

Cat. No. GP-27B Lot. No. (See product label)

## SPECIFICATION

|                         |   |
|-------------------------|---|
| <b>Product Overview</b> | Recombinant Ebolavirus BDBV(subtype Bundibugyo, strain Uganda 2007) Small/secreted Glycoprotein (sGP) protein (Ile33-Arg324), fused to His tag at C-terminus, was expressed in human 293 cells (HEK293).  |
| <b>Species</b>          | EVD   |
| <b>Source</b>           | HEK293  |
| <b>ProteinLength</b>    | 292   |
| <b>Description</b>      | <p>EBOV encodes seven structural proteins: nucleoprotein (NP), polymerase cofactor (VP35), (VP40), GP, transcription activator (VP30), VP24, and RNA polymerase (L). GP protein contains 160-kDa envelope-attached glycoprotein (GP) and a 110 kDa secreted glycoprotein (sGP). 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. GP1 is responsible for binding to the receptor(s) on target cells. Interacts with CD209/DC-SIGN and CLEC4M/DC-SIGNR which act as cofactors for virus entry into the host cell. GP2 acts as a class I viral fusion protein. GP1,2 mediates endothelial cell activation and decreases endothelial barrier function. sGP seems to possess an anti-inflammatory activity as it can reverse the barrier-</p> |

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|                       |  |
|-----------------------|--|
|                       | decreasing effects of TNF alpha.   |
| <b>Form</b>           | Lyophilized from 0.22 um filtered solution in PBS, pH7.4, 10% trehalose.   |
| <b>Molecular Mass</b> | The protein has a calculated MW of 34.3 kDa. The protein migrates as 40-55 kDa under reducing (R) condition (SDS-PAGE).  |
| <b>Endotoxin</b>      | Less than 1.0 EU per ug by the LAL method.   |
| <b>Purity</b>         | >95% as determined by SDS-PAGE.  |
| <b>Storage</b>        | <p>For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <p>-20 centigrade to -70 centigrade for 12 months in lyophilized state;</p> <p>-70 centigrade for 3 months under sterile conditions after reconstitution.</p> |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.  |

## GENE INFORMATION

|                        |         |
|------------------------|---------|
| <b>Gene Name</b>       | GP      |
| <b>Official Symbol</b> | GP      |
| <b>Synonyms</b>        | BDBVp4  |
| <b>Gene ID</b>         | 9487265 |

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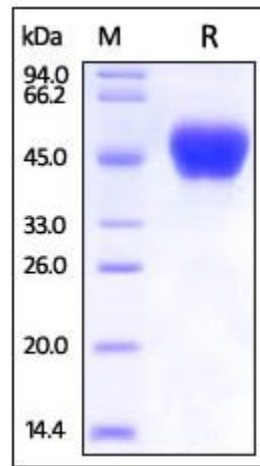
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Protein Refseq YP\_003815436.1

UniProt ID B8XCN1

**SDS-PAGE of GP-27B**



Ebolavirus GP (virus), His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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