# **Elabscience®**

Tel:240-252-7368(USA) Fax: 240-252-7376(USA) techsupport@elabscience.com Website: www.elabscience.com

# Anti-Ebola virus EBOV(subtype Bundibugyo, strain Uganda 2007) GP1/Glycoprotein Polyclonal Antibody

E-AB-V1103

**Application** WB **Host** Rabbit

Storage Store at -20°C. Avoid freeze / thaw cycles.

Important Note Centrifuge before opening to ensure complete recovery of vial contents.

#### **Product Details**

Immunogen Recombinant EBOV (subtype Bundibugyo, strain Uganda 2007) GP1 / Glycoprotein Protein

(His Tag)

IsotypeIgGHostRabbitReactivityEbola virus

**Dilution** WB 1:1000-1:5000

Storage Buffer 0.2 μm filtered solution in PBS Stability & Storage Ships on ice packs. Store at -20°C

**Description** This antibody was produced in rabbits immunized with purified Recombinant EBOV (subtype

Bundibugyo, strain Uganda 2007) GP1 / Glycoprotein Protein (His Tag). And the antibody was

purified by EBOV Ebola virus EBOV (subtype Bundibugyo, strain Uganda 2007) G

### **Antigen Infomation**

Alternate Names

Glycoprotein, GP

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 Nterminus, 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 receptorα, 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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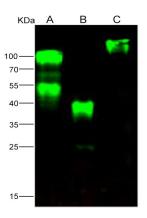
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## **Images**



Western Blot analysis of 10ng Recombinant EBOV (subtype Zaire, strain H.sapiens-wt/GIN/2014/Kissidougou-C15) Glycoprotein / GP-RBD Protein (His Tag)(PKSV030154), Ebola virus EBOV (subtype Bundibugyo, strain Uganda 2007) GP1 / Glycoprotein Protein (His Tag)(PKSV030136) and Recombinant EBOV (subtype Sudan, strain Gulu) GP1 / Glycoprotein Protein (His Tag)(PKSV030144) using Anti-Ebola virus EBOV(subtype Bundibugyo, strain Uganda 2007) GP1/Glycoprotein Polyclonal Antibody at dilution of 1:1000.