Anti-Ebola virus EBOV(Subtype Sudan, strain Gulu) Glycoprotein/GP1(mucin domain deleted) Monoclonal Antibody

catalog number: E-AB-V1112

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

Description

Reactivity	Ebola virus
Immunogen	Recombinant EBOV (Subtype Sudan, strain Gulu) Glycoprotein / GP1 (mucin domain deleted) Protein (His Tag)
Host	Rabbit
Isotype	Rabbit IgG
Clone	301
Purification	Protein A Affinity
Buffer	0.2 μm filtered solution in PBS.

Applications	Recommended Dilution
ELISA	1:5000-1:10000

Preparation & Storage

Storage	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
Shipping	The product is shipped with ice pack,upon receipt,store it immediately at the temperature recommended.

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 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

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