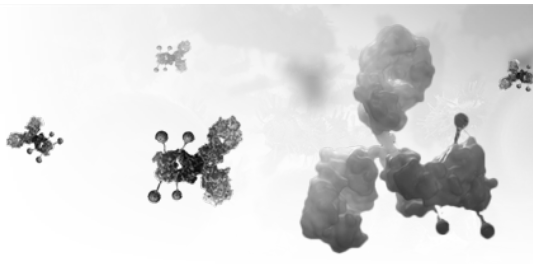

Rabbit Anti-EBOV-G Polyclonal Antibody (CABT-NS1753)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Sudan ebolavirus (strain Gulu) GP1, Sudan ebolavirus (strain Gulu) GP. Has cross-reactivity in WB with Zaire ebolavirus (strain Mayinga 1976) GP1, Zaire ebolavirus (strain Mayinga 1976) GP, Bundibugyo ebolavirus (strain Uganda 2007) GP1 and Bundibugyo ebolavirus (strain Uganda 2007) GP.
Target	EBOV-G protein
Immunogen	Recombinant Ebola virus EBOV-G protein
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	EBOV
Conjugate	Unconjugated
Applications	WB, ELISA, IHC-P, IP Antibody' s applications have not been validated with corresponding viruses. Optimal concentrations/dilutions should be determined by the end user.) This antibody detect Ebola virus EBOV (Subtype Sudan, strain Gulu) Glycoprotein/GP1 (mucin domain deleted) Protein. The detection limit is < 0.039 ng/well.
Format	Liquid, Purified
Size	50 µl, 100 µl, 200 µl
Buffer	0.2 µm filtered solution in PBS with 5% trehalose
Preservative	None

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Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free.Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

BACKGROUND

Introduction	The fourth gene of the EBOV genome encodes a 160-kDa envelope-attached glycoprotein (GP) and a 110 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.
Keywords	Ebola virus; EBOV; Zaire ebolavirus; Zaire Ebola Virus; ebolavirus

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