DESCRIPTION

Species Reactivity	Viral
Specificity	Detects EBOV GP in direct ELISAs.
Source	Monoclonal Mouse IgG$_{2A}$ Clone # 993408
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant Viral EBOV GP Ile33-Arg501 Accession # Q05320
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

The GP glycoprotein encoded by the genome of Ebola family viruses is a critical molecule for the pathogenicity of *Ebolavirus* hemorrhagic viruses (1, 2). It is processed into distinct forms for virus capsule or cell surface presentation or release from virus infected cells. The GP precursor protein is cleaved by furin at a multibasic site to yield a 140 kDa N-terminal fragment (GP1) and a 26 kDa C-terminal fragment (GP2) which remain disulfide linked (3). GP1 is entirely extracellular while GP2 is a transmembrane protein (4). Heterodimers of GP1-GP2 can further associate into trimers (5). GP expressed on virus infected cells can be shed by TACE mediated cleavage, liberating a disulfide linked complex of soluble GP1 and truncated GP2 (4-6). GP binds to multiple C-type lectins on target cell surfaces, including CLEC10A/MGL, DC-SIGN, and DC-SIGNR (7-9). Following internalization, GP1 is cleaved by Cathepsin B and Cathepsin L and then interacts with Niemann-Pick C1 (NPC1) in the endosomal membrane (10-12).

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