

Anti-Ebola surface glycoprotein [KZ52] Standard Size Ab00690-48.1

This chimeric ferret antibody was made using the variable domain sequences of the original Human IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Ferret IgG1

Clone Number: KZ52

Alternative Name(s) of Target: trimeric prefusion Ebola virus glycoprotein; EBOV GP

UniProt Accession Number of Target Protein:

Published Application(s): crystallization, IP, NTRL, IF

Published Species Reactivity: Ebola (Zaire)

Immunogen: This antibody was derived from a human survivor of the 1995 Kikwit outbreak of Ebola.

Specificity: This antibody binds to the Ebola virus surface glycoprotein in its trimeric, pre-fusion conformation (GP1+GP2). KZ52 recognizes a protein epitope at the chalice base where it clamps several regions of the pre-fusion GP2 to the amino terminus of GP1.

Application Notes: This antibody neutralizes Zaire ebolavirus in vitro and offers protection from lethal EBOV challenge in rodent models, but has minimal effects on viral pathogenicity in non-human primates. KZ52 likely neutralizes by preventing rearrangement of the GP2 HR1A/HR1B segments and blocking host membrane insertion of the internal fusion loop. Alternatively, IgG KZ52 may sterically hinder access to the RBS or to a separate binding site of another cellular factor, especially if multiple attachment events are required for entry (Lee et al. 2009). This antibody will detect both live and fixed virus by IF (Maruyama 1999, PMID: 10364354) . It has also been used as a positive control in the development of anti-Ebola polyclonal goat antibodies (Boisen et al. 2015).

Antibody First Published in: Maruyama et al. Ebola virus can be effectively neutralized by antibody produced in natural human infection. J Virol. 1999 Jul; 73(7): 6024-6030. [PMID:18615077](#)

Note on publication: Describes the generation and functional characterization of this antibody.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In:

PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.