

Anti-Ebola GP [h-13F6] Standard Size Ab00790-10.6

This is a Fab fragment with a his-tag.

This reformatted human 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: Human Fab fragment, His-Tagged, Lambda

Clone Number: h-13F6

Alternative Name(s) of Target: GP1; Envelope glycoprotein; EBOV glycoprotein; EBOV GP

UniProt Accession Number of Target Protein: Q05320

Published Application(s): IP, SPR, ELISA

Published Species Reactivity: EBOV (Zaire)

Immunogen: Murine 13F6 (IgG2a) was prepared by immunizing BALB/c mice with packaged Venezuelan equine encephalitis virus replicons encoding the GP from the Mayinga isolate of Ebola virus Zaire 1976. Murine 13F6 was deimmunized (to remove T-cell epitopes from the variable region sequences) and chimerized with human IgG1 constant regions to create h13F6.

Specificity: h-13F6 binds specifically to the linear epitope ATQVEQHRRRTDNDSTA (aa 401-417) on Ebola Virus Zaire GP1. Proteolytic processing of GP results in two products, GP1 and membrane-bound GP2, that covalently associate to form a monomer of the GP spike found on the surfaces of virions. GP1 is also released from infected cells in a soluble form. The Ebola virus is of the family Filoviridae and causes acute hemorrhagic fever in humans and non-human primates. The membrane-anchored glycoprotein (GP) is the only viral protein known to be on the surfaces of virions and infected cells and is thought to be responsible for receptor binding and fusion of the virus with host cells.

Application Notes: h-13F6 binds to human FcγRI (CD64) and FcγRIII (CD16) (determined by SPR) and can confer in vitro ADCC activity and in vivo antitumor activity comparable to its fully murine parental mAb. h-13F6 also binds C1q (which is important for the first step in the classical complement cascade), and was determined by ELISA. h-13F6 also binds to mouse FcγRI, -II, and -III in vitro. h-13F6 has also been tested in lethal EBOV challenge mouse models where h-13F6 was shown to possess dose-dependent protectivity - equivalent protection between the original murine 13F6 and h-13F6. The antibody is unable to neutralize EBOV.

Antibody First Published in: Zeitlin L et al. Enhanced potency of a fucose-free monoclonal antibody being developed as an Ebola virus immunoprotectant. Proc Natl Acad Sci U S A. 2011 Dec 20;108(51):20690-4.

[PMID:22143789](#)

Note on publication: Describes the generation of a deimmunized and chimeric anti-EBOV GP antibody and its characterization of in vivo and in vitro properties. It is also compared to the original murine antibody.

Product Form

Size: 100 µg Purified antibody.

Purification: Purified by Immobilized Metal Affinity Chromatography

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.