

Anti-F glycoprotein [12B2] Standard Size Ab02792-10.0

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

Isotype and Format: Human IgG1, Kappa

Clone Number: 12B2

Alternative Name(s) of Target: Fusion glycoprotein F0; Protein F; F protein; NiV F; HeV F; NiV; HeV

UniProt Accession Number of Target Protein: Q9IH63; O89342

Published Application(s): functional assay, neutralize

Published Species Reactivity: Nipah virus

Immunogen: The original antibody was generated by immunizing mice with recombinant soluble constructs obtained from Nipah or Hendra virus.

Specificity: This antibody binds a conformation specific epitope on the F glycoprotein of the Nipah and Hendra virus. The nipah and hendra virus are spread by bats.

Application Notes: This antibody is reported to broadly neutralize nipah and hendra virus by blocking membrane fusion. Biolayer interferometry was used to characterize binding of the 12B2 Fab fragments to prefusion NiV F or HeV F ectodomain trimers immobilized on the surface of biosensors. The equilibrium dissociation constants (Kd) of 27.7 and 5.35 nM for attachment of Fab fragments of 12B2 to NiV F or HeV F, respectively. To further characterize this antibody, a kinetic assay was performed on HeV F- or NiV F- or NiV F S69A using the mouse version of this antibody. A cryo electron microscopy was performed on samples of the Fab fragment of this antibody bound to the F glycoprotein of the nipah virus (Dang et al, 2021; PMID:33927387). To analyze the ability of this antibody to prevent and cure disease, a fusion inhibition assay was performed on CHO745 cells transfected with HNV F and G glycoproteins using the mouse IgG version of this antibody. Further a plaque reduction assay was performed NiV-M, NiV-B or HeV using both the human and mouse IgG version of this antibody (Dang et al., 2021; PMID: 33927387).

Antibody First Published in: Dang et al. Broadly neutralizing antibody cocktails targeting Nipah virus and Hendra virus fusion glycoproteins. Nat Struct Mol Biol. 2021 May; 28(5):426-434. [PMID:33927387](#)

Note on publication: Two cross-reactive F-specific antibodies, 1F5 and 12B2, that neutralize NiV and HeV through inhibition of membrane fusion are described.

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.