Anti-VP35 [H3] Standard Size Ab03025-21.0

This antibody does not have a J-chain and therefore presents as a hexamer, rather than a pentamer.

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

Isotype and Format: Mouse IgM, Kappa
Clone Number: H3
Alternative Name(s) of Target: Polymerase cofactor VP35; VP35; mVP35; Marburg VP35; Marburg virus protein 35; sFab H3
UniProt Accession Number of Target Protein: Q03039
Published Application(s): crystallography, inhibition, ELISA
Published Species Reactivity: Marburg Virus
Immunogen: The original antibody was generated by using phage display technology. The library was constructed on a single human Fab framework with variable domains from subgroups VH3 and Vκ1. The synthetic Fab phage library was screened against the recombinant mVP35 IFN inhibitory domain (IID) protein of Marburg virus.
Specificity: The antibody binds the α-helical subdomain of mVP35 IID. Further, the antibody does not cross-react with Ebola virus VP35 protein.
Application Notes: The specificity of this antibody (Fab) was confirmed by ELISA analysis. The antibody was crystallized with the antigen. The dissociation constants (KD) measured using isothermal-titration calorimetry (ITC) revealed that the antibody binds to mVP35 IID with high affinity (KD = 4.90 ± 1 nM) and it exhibited 1:1 stoichiometry. The scFv format of the antibody was employed to test if the antibody binding interferes with mVP35 function in viral replication, scFv expression inhibited the Marburg polymerase complex in a dose-dependent manner but did not inhibit Ebola minigenome activity (Amatya et al, 2019; pmid:31120240).
Antibody First Published in: Amatya et al. Inhibition of Marburg Virus RNA Synthesis by a Synthetic Anti-VP35 Antibody ACS Infect Dis. 2019 Aug 9;5(8):1385-1396. PMID:31120240
Note on publication: The paper describes the generation and characterization of the antibody.

Product Form

Size:

50 µg Purified antibody.
Purification: Affinity Purified using a recombinant lectin column
Supplied In: PBS with 0.02% Proclin 300.
Storage Recommendation: Store at 4ºC for up to 3 months. For longer storage, aliquot and store at -20ºC.
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.