

Anti-VP1 protein [sdAb-C6] Bulk size M Ab03262-23.159-BS

Isotype and Format: Rabbit IgG-Fc fusion

Clone Number: sdAb-C6

Alternative Name(s) of Target: VP1; Genome polyprotein; Capsid protein VP1; Virion protein 1; Protein VP1; P1D

UniProt Accession Number of Target Protein: A2I7M3

Published Application(s): SPR, ELISA, IF

Published Species Reactivity: Foot-and-mouth disease virus (FMDV) Asia 1

Immunogen: The original antibody was generated by immunizing Bactrian camels with recombinant VLPs expressing antigenic epitopes of FMDV Asia 1. The peripheral blood lymphocytes of the camel were used to generate an sdAb antibody library. This particular antibody was isolated using phage display technology.

Specificity: This antibody binds VP1 protein of foot-and-mouth disease Asia 1. FMDV a picornavirus, the prototypical member of the genus Aphthovirus. FMDV causes a mild, contagious viral infection common in young children characterized by vesicles (blisters) or sores in the mouth and a rash on the hands and feet. It can also affect cattle, pigs, sheep, goats, and other cloven-hoofed animals.

Application Notes: This antibody specifically recognizes VP1 protein of FMDV Asia 1 serotype by ELISA (PMID: 23737944). This antibody failed in completely neutralizing the Asia 1 virus. The binding affinity of this antibody was measured using surface plasmon resonance (SPR) and found to be 0.44 nM. CdSe/ZnS core-shell QDs with emission wavelengths of 605 nm (QD605, red) were conjugated with the sdAb-C6, a highly sensitive, newly developed nanoprobe, to achieve target detection and fluorescent spectral analysis of FMDV infection in BHK-21 cells (PMID: 23737944).

Antibody First Published in: Yin et al. Characterization of Asia 1 sdAb from camels Bactrians (*C. bactrianus*) and conjugation with quantum dots for imaging FMDV in BHK-21 cells. PLoS One. 2013 May 30;8(5):e63500. [PMID:23737944](#)

Note on publication: Describes the characterization of this antibody and its use in conjugation with quantum dots for visualization of FMDV.

Product Form

Size: 5 mg Purified antibody in bulk size.

Purification: Protein A affinity purified

Supplied In: PBS only.

Storage Recommendation: Store at 4°C for up to 3 months. Note, this antibody is provided without

added preservatives, it is therefore recommended this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

Concentration: See vial label

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