

Anti-Bovine coronavirus [SF-3E4] Standard Size Ab01155-1.1

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

Isotype and Format: Mouse IgG1, Kappa

Clone Number: SF-3E4

Alternative Name(s) of Target: BCV

UniProt Accession Number of Target Protein:

Published Application(s): neutralising, WB, ELISA

Published Species Reactivity: Bovine coronavirus

Immunogen: This antibody was isolated from an immunised bovine scFv phage display library. The antibody repertoire of a Holstein Frisian bull immunized against BCV was amplified, and the antibody-encoding cDNA from isolated peripheral blood mononuclear cells was used.

Specificity: This antibody recognises an epitope in the S1 subunit of the BCV spike protein.

Application Notes: An scFv version of this antibody exhibits good binding kinetics ($K_m = 595$ pM) and neutralization ability (≥ 0.24 µg/ml) against BCV-V270 in ELISA analysis and neutralisation assays using BCV-V270-infected VERO cell cultures (Fischer, 2017). Western blotting and a competition ELISA with BCV-V270 have shown that this scFv recognises an epitope in the BCV spike protein (Fischer, 2017). In ELISA analysis, this scFv cross-reacts with BCV-L9 and the human coronavirus strain OC43 (Fischer, 2017). This scFv is a potential therapeutic candidate for the treatment of calf diarrhea caused by coronaviruses.

Antibody First Published in: Fischer Cytokines and immunoglobulin genetics in neonatal calf diarrhea Doctoral Dissertation, Faculty of Veterinary Medicine, Justus Liebig University Giessen [PMID:](#)

Note on publication: Describes the original generation of this scFv, and its characterisation in ELISA and WB analysis

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.