

## Anti-Bovine coronavirus [SF-3E4] Standard Size Ab01155-23.0

This full-length, chimeric rabbit 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:** Rabbit IgG, 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 ( $K_m = 595 \text{ pM}$ ) and neutralization ability ( $\geq 0.24 \text{ µg/ml}$ ) 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.