

## Anti-Cytotoxin 1, 3, 7 [TPL0027\_01\_F7] Standard Size Ab01642-10.3

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

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

**Isotype and Format:** Human IgG1, Fc Silent™, Kappa

**Clone Number:** TPL0027\_01\_F7

**Alternative Name(s) of Target:** CTX1,3,7; CX1; Cardiotoxin F8; Cardiotoxin-I; CTX-I; Toxin CM-6; Cytotoxin 3; CX3; Toxin CM-7; Cytotoxin 7; Toxin CM-4B

**UniProt Accession Number of Target Protein:**

**Published Application(s):** ELISA

**Published Species Reactivity:** Naja nigricollis

**Immunogen:** The antibody was raised using IONTAS phage display library, a naïve human scFv library consisting of  $4.0 \cdot 10^{10}$  unique antibody fragments. Through phage display selection, scFv-presenting phages were allowed to bind a toxin, phages with unspecific binding were washed away, and the rest were eluted through enzymatic digestion. These were then amplified and used for the following round. In total three rounds of selections were completed leaving the best binders behind.

**Specificity:** TPL0027\_01\_F7 antibody recognizes cytotoxins 1, 3 and 7, which are some of the major toxins in the venom of the black-necked spitting cobra (Naja nigricollis).

**Application Notes:** TPL0027\_01\_F7 antibody has high affinity to the cytotoxins 1, 3 and 7. It was demonstrated by normalized ELISA, which circumvents the limitation of a simple ELISA by removing the expression variable, normalizing the amount of scFv in each well. The antibody's high affinity was confirmed by its ability to bind the target proteins in a venom fraction even at 1:32,000 dilution ( $3.125 \cdot 10^{-2}$ ) µg/mL (Jürgensen et al., 2019 [poster]). It is recommended for the research on the antitoxin against Naja nigricollis snakebites.

**Antibody First Published in:** Jürgensen et al. Harnessing monoclonal antibodies for development of a specific treatment against Naja nigricollis envenoming. 10.13140/RG.2.2.24771.14884. [PMID:](#)

**Note on publication:** This poster describes the generation and characterization of the TPL0027\_01\_F7

antibody among other antibodies directed against the venom toxins of *Naja nigricollis*.

## 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.