

## Anti-Envelope protein (soluble) [Z3L1] Bulk Size Ab00940-10.3-BT

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

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

**Clone Number:** Z3L1

**Alternative Name(s) of Target:** ZIKV sE; Zika virus soluble envelope protein; Zika virus envelope protein; ZIKV soluble envelope protein; ZIKV envelope protein; Zika virus sE protein; ZIKV sE protein; Z3-L1

**UniProt Accession Number of Target Protein:**

**Published Application(s):** crystallisation, NTRL, SPR, ELISA, FC

**Published Species Reactivity:** Zika Virus

**Immunogen:** Anti-ZIKV mAbs were obtained from the sera and peripheral blood mononuclear cells of a ZIKV-infected patient.

**Specificity:** Z3L1 binds to the ZIKV soluble envelope (sE) protein, shown using SPR, kinetic competition assays and crystallography (Wang et al, 2016). This mAb is highly specific for ZIKV, and was shown to exhibit no neutralisation activity against DENV-1 to DENV-4 virions, which are highly related to ZIKV. It was shown crystallographically that the Z3L1 Fab region binds to domain I and domain II of sE. ZIKV has recently become a major global health concern, following a 2015 outbreak. Viral infection is associated with neurological complications and microencephaly.

**Application Notes:** Z3L1 was confirmed to bind ZIKV sE protein by ELISA, with an affinity of 5.39 uM shown by SPR (Wang et al, 2016). Using a FACS-based assay, it was shown that Z3L1 was sufficient for complete neutralisation of viral activity against infected C6/36 and Vero cells. In vivo, it has been shown that Z3L1 protected IFN receptor KO mice from ZIKV infection.

**Antibody First Published in:** Wang et al. Molecular determinants of human neutralizing antibodies isolated from a patient infected with Zika virus. Sci Transl Med. 2016 Dec 14;8(369):369ra179.

[PMID:27974667](#)

**Note on publication:** Describes the identification of several anti-ZIKV mAbs from the blood of a patient with ZIKV infection. The mAbs identified were characterised for antigen specificity using biochemical and biophysical methods, and a few of the mAbs found were crystallised with the ZIKV sE protein.

## Product Form

**Size:** 1 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:** 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.