

## Anti-CTLA-4 [9D9] VivopureX 5 mg Ab01018-2.3-VXM

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

This reformatted mouse antibody was made using the variable domain sequences of the original Mouse IgG2b format, for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Mouse IgG2a, [Fc Silent™](#), Kappa

**Clone Number:** 9D9

**Alternative Name(s) of Target:** CD152; CTLA4; Cytotoxic T-Lymphocyte Associated Protein 4; Insulin-Dependent Diabetes Mellitus 12; Celiac Disease 3; Ligand And Transmembrane Spliced Cytotoxic T Lymphocyte Associated Antigen 4; Cytotoxic T Lymphocyte Associated Antigen 4 Short Spliced Fo

**UniProt Accession Number of Target Protein:** P09793

**Published Application(s):** Block, IF

**Published Species Reactivity:** Mouse

**Immunogen:** The antibody was raised against CTLA-4.

**Specificity:** The antibody is specific for CTLA-4.

**Application Notes:** The antibody has been used to block CTLA-4 and has been shown to enhance T-cell immunity against tumours (Quezada et al, 2006). 9D9 also has an anti-B16/BL6 melanoma effect in non-irradiated tumour-bearing recipients when given as combinatorial therapy with Gvax (Peggs et al, 2009). Selby et al. (PMID: 24777248) show how conversion of the original mouse IgG2b to a mouse IgG2a greatly increases anti-tumor activity of the 9D9 antibody in both MC38 (C57BL/6 mice) and CT26 (BALB/c mice) models. This mechanism both involves blockade of CTLA4 as well as depletion of tumor-infiltrating regulatory T-cells. Fc Silent antibodies were shown to have reduced anti-tumor activity as they did not deplete tumor infiltrating regulatory T-cells, however they lead to expansion of peripheral Tregs.

**Antibody First Published in:** Simpson T et al. Fc-dependent depletion of tumor-infiltrating regulatory T cells co-defines the efficacy of anti-CTLA-4 therapy against melanoma J Exp Med. 2013 Aug 26; 210(9): 1695-1710. [PMID:23897981](#)

**Note on publication:** Describes the characterisation of the Fcγ receptor-dependent activity of 9D9 on the T reg cell compartment.

## Product Form

**Size:** 5 mg VivopureX products are produced at high purity (>98%), low endotoxin (<0.5 EU/mg) and are formulated without preservatives. These antibodies are chimerized to have an Fc domain matching their target species to reduce immunogenicity and give you the optimal effector function for your experiment. As a result VivopureX products are the ideal choice for in vivo research applications.

**Purification:** Protein A affinity purified

**Supplied In:** PBS only.

**Storage Recommendation:** All VivopureX products are formulated in PBS only without addition of preservatives. To ensure optimal storage and prevent microbial contamination, only open and dispense under sterile conditions. Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

**Concentration:** ≥1mg (see vial label for exact conc)

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