

## Anti-CTLA-4 [9D9] Standard Size bAb0166

This antibody is a knob-into-hole bispecific based on murine IgG2a with an Fc Silent™ mutation, featuring one arm with an anti-mouse PD-L1 VHH clone VHH-PD-L1.

This is a bispecific, knob-into-hole heterodimerized antibody, with one arm directed against CTLA4 (Fab) and one arm directed against mouse PDL-1 (VHH).

**Isotype and Format:** Mouse IgG2a mPD-L1 KIH bispecific, [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:** 50 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.