

## Anti-CD80 [RM80] VivopureX 5 mg Ab01028-3.3-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 chimeric mouse antibody was made using the variable domain sequences of the original Rat IgG2a format, for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Mouse IgG2b, Fc Silent™, Kappa

**Clone Number:** RM80

**Alternative Name(s) of Target:** B7-1; Activation B7-1 antigen; B7; B7 protein; B7-1 protein; B7.1; Cd28l; CD28LG; CD28LG1; LAB7; Ly-53; Ly53; MIC17; T-cell co-stimulatory protein B7-1; T-lymphocyte activation antigen CD80; TS/A-1

**UniProt Accession Number of Target Protein:** Q00609

**Published Application(s):** Blocking, functional assays, WB, FC, IHC

**Published Species Reactivity:** Mouse

**Immunogen:** This antibody was raised by immunising Sprague Dawley rats with a mouse B cell line, BCL1 and fusing immune splenocytes with P3U1 myeloma cells.

**Specificity:** This antibody is specific for murine CD80, a ~55 kDa member of the Ig superfamily. CD80 is expressed by macrophages, dendritic cells, activated B cells, and activated T cells. CD80 has high affinity for binding to two T cell surface antigens, CD28 and CD152 (CTLA-4). The interaction of CD28 and CD152 with CD80 is crucial in T-B cell communication leading to the activation of T and B cells, respectively.

**Application Notes:** This antibody has been used in multiple FACS experiments for various immunological applications, such as to highlight the robustness of the T cell priming process by activated Nlrp5-deficient dendritic cells (Rota et al, 2016), to demonstrate that allogeneic IgG combined with dendritic cell stimuli could induce anti-tumor T cell immunity (Carmi et al, 2015), to confirm the role of aquaporin-9-expressing neutrophils for the development of contact hypersensitivity (Moniaga et al, 2015), and to support the therapeutic potential of targeting B-cell Syk signaling in chronic graft-versus-host disease (Flynn et al, 2015). This antibody has also been used in Western Blot to study the effect of interleukin 4-induced gene-1 (IL4I1) overexpression on the expression of M2 markers and M1-associated cytokines (Yue et al, 2015), as well as in in vitro blocking experiments to confirm the role of CD28 signals for IL-2-mediated survival and proliferation of both CD27(+) and CD27(-) γδ T cell subsets (Ribot et al, 2012). Furthermore, this antibody has been used, together with the anti-CD86 antibody, in numerous in vivo studies, such as in a NZB/W F1 mouse lupus model to clarify the role of CD80 and CD86 in murine Ab-mediated autoimmunity (Nakajima et

al, 1995), in graft bearing recipient BALB/c mice to evaluate the roles of CD80 and CD86 costimulatory molecules in corneal allograft rejection (Kagaya et al, 2002), and in transgenic BALB/c mice to demonstrate the critical contribution of CD80 and CD86 in anterior chamber-associated immune deviation (Tsukahara et al, 2005).

**Antibody First Published in:** Atsuo Nakajima et al. Preferential dependence of autoantibody production in murine lupus on CD86 costimulatory molecule. Eur J Immunol. 1995 Nov;25(11):3060-9. [PMID:7489744](#)

**Note on publication:** Describe the use of this antibody, together with the anti-CD86 antibody, to confirm the preferential dependence of murine Ab-mediated autoimmunity on the CD86 costimulatory molecule.

## 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.