Anti-CD25 [PC-61.5.3] Standard Size Ab01107-7.4

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 rat antibody was made using the variable domain sequences of the original Rat IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Rat IgG2a, Fc Silent™, Lambda
Clone Number: PC-61.5.3
Alternative Name(s) of Target: IL2-RA; IL-2 receptor subunit alpha;L-2R alpha chain; IL-2R subunit alpha; Interleukin-2 receptor subunit alpha; p55; p55 chain; PC61; PC6153
UniProt Accession Number of Target Protein: P01590
Published Application(s): Depletion, functional assays, WB, ELISA, FC, IF
Published Species Reactivity: Mouse
Immunogen: This antibody was raised by immunising rats with the B6.1 mouse cytotoxic T cell line, followed by fusing spleen cells with P3X63Ag8.653 myeloma cells.
Specificity: This antibody is specific for murine CD25, the 55 kDa interleukin-2 receptor alpha chain (IL-2R alpha). CD25 is expressed by early progenitors of the T and B lineage as well as by activated mature T and B lymphocytes. By itself, CD25 binds IL-2 only with low affinity. However, CD25 associates with CD122 (IL-2 receptor beta chain) and CD132 (common gamma chain) to form the high affinity IL-2 receptor. Binding of IL-2 to both the high and low affinity classes of IL-2 receptor is inhibited by the PC61.5 antibody.
Application Notes: This antibody has been used in numerous FACS analyses, for instance, to demonstrate that glycolysis and glutaminolysis cooperatively control T cell function by limiting metabolite supply to N-glycosylation (Araujo et al, 2017), to suggest that IL-2C could be a potential therapeutic method to alleviate excessive inflammation and maintain blood vessel stability after traumatic brain injury (Gao et al, 2017), and to evaluate how alternative splicing of MALT1 controls signalling and activation of CD4(+) T cells (Meininger e al, 2016). This antibody has also been used in immunofluorescence as part of the DNA Aβ42 immunization studies in mice (Lambracht-Washington et al, 2015), in ELISA assays to investigate the dynamics of T cell receptor (TCR)-dependent signaling networks (Brockmeyer et al, 2011), and in Western Blot to determine the effects of increased p300 expression on glucocorticoid receptor (GR)-T-cell-receptor (TCR) crosstalk between thymocytes (Yu et at, 2002). In addition, this antibody has been used in various in vivo functional studies, for instance, to suggest that a combination of local anti–CTLA-4 antibody production with systemic Treg depletion could enhance antitumor immune responses (Tuve et al, 2007), to provide a

new insight into infection-associated tumorigenesis and illustrate the importance of antibiotic therapy to treat tumors with bacterial infiltration (Huang et al, 2007), and to demonstrate that CD4+CD25+ T cells may downregulate the development of glomerulonephritis during the preactive phase in B/WF1 mice (Hayashi et al, 2005).
Antibody First Published in: Trowbridge et al. Murine cell surface transferrin receptor: studies with an anti-receptor monoclonal antibody. J Cell Physiol. 1982 Sep;112(3):403-10. PMID:6290505
Note on publication: Describe the original generation of this antibody and its subsequent characterisation by FACS analysis and in vitro biochemical assays.

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^{0}C for up to 3 months. For longer storage, aliquot and store at -20^{0}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.