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Product datasheet for TA388960

CD274 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	Sandwich ELISA: To detect Human PD-L1 Fc by sandwich ELISA (using 100ul/well), a concentration of 0.25-1.0 µg/ml of this antibody is required. This biotinylated polyclonal antibody, in conjunction with ProSci's Polyclonal Anti-Human PD-L1 Fc as a capture antibody, allows the detection of at least 2000-4000 pg/ml of Recombinant Human PD-L1 Fc. Western Blot To detect Human PD-L1 Fc by Western Blot analysis, this antibody can be used at a concentration of 0.1-0.2 µg/ml. When used in conjunction with compatible development reagents, the detection limit for Recombinant Human PD-L1 Fc is 1.5-3.0 ng/lane, under either reducing or non-reducing conditions.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Produced from sera of rabbits immunized with highly pure Recombinant Human PD-L1 Fc. Anti-Human PD-L1 Fc-specific antibody was purified by affinity chromatography and then biotinylated.
Concentration:	lot specific
Purification:	PD-L1 Fc-specific antibody was purified by affinity chromatography and then biotinylated
Conjugation:	Biotin
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.

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Background:

Programmed death-ligand 1 (PD-L1), or B7-H1, is a transmembrane, co-stimulatory ligand of programmed cell death protein 1 (PD-1) that, along with B7-1 and B7-2, belongs to the B7 family and immunoglobulin superfamily. Though more notably expressed on activated T cells, B cells, myeloid cells, and a subset of thymocytes, PD-L1 is also expressed constitutively by nonlymphoid, parenchymal organs, including the heart, placenta, skeletal muscle, and lung; with the marked exception of the small intestine. As a member of the B7 family, PD-L1 plays a principal role in immunity: suppressing immune response against autoantigens and tumors, maintaining T cell homeostasis, maintaining peripheral immune tolerance, and regulating T-cell-mediated cytokine secretion. Unlike B7-1 and B7-2, PD-L1 has not been shown to influence immunity through interaction with CD28, CTLA-4 or ICOS, but rather through interaction with PD-1, a weak structural homolog of CTLA-4 that belongs to the same superfamily. Involvement of PD-1 suggests an inhibitory function during T cell activation; however, evidence has demonstrated PD-L1's conflicting responsibility for both the stimulation and inhibition of T-cell-mediated cytokine synthesis. While T cell co-stimulation with PD-L1 induces proliferation and the secretion of IL-10 and IFN-gamma, muscle cell expression of PD-L1 has been shown to inhibit function of CD4 and CD8 T cells by down-regulating cytokine secretion and the expression of T cell activation markers. Augmented expression of PD-L1 has been linked to the inhibition of antitumor immune response in cancer, and the up-regulation of IL-10 production in HIV-infection, resulting in increased susceptibility of antigen-specific T cells to apoptosis. ProSci's CHO cell-derived Recombinant Human PD-L1 Fc is a glycosylated, disulfide-linked homodimer of 906 amino acid residues whose monomer consists of the 220-amino-acid length extracellular portion of PD-L1 fused to the 231-amino-acid length Fc portion of human IgG1 by two glycines. The calculated molecular weight of CHO cell-derived Recombinant Human PD-L1 Fc is 102.6 kDa, however, due to glycosylation, it migrates at an apparent molecular weight of approximately 160-170 kDa by SDS-PAGE analysis under non-reducing conditions.