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B7-1/CD80 Rabbit pAb

Catalog # AP96829

Product Information

Application	WB
Primary Accession	Q00609
Other Accession	Q00609
Reactivity	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34590
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse B7-1/CD80
Epitope Specificity	1-100/306
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 Ig-like C2-type (immunoglobulin-like) domain. Contains 1 Ig-like V-type (immunoglobulin-like) domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	CD80 is a member of the Ig superfamily and serves as the ligand for two T cell molecules, CD28 and CTLA4. Interactions between CD28 and CD80 on activated B cells result in enhanced T cell activation. CD80 is rapidly induced on the surface of in vitro activated B cells, Epstein Barr Virus (EBV) transformed B cell lines, Burkitts lymphoma cell lines, freshly isolated follicular B lymphoma cells, T cells, and monocytes. It is also expressed at high levels in dendritic cells. It reacts weakly with a small proportion of non activated normal B cells and with HTLV1 infected T cells. CD80 does not react with peripheral monocytes, resting and activated normal T cells, T cell lines and T cell clones, nor with myelomonocytic cell lines.

Additional Information

Gene ID	12519
Other Names	B7; B7-1; B7.1; BB1; CD28LG; CD28LG1; LAB7; B71; Cd28l; Ly-53; Ly53; MIC17; TSA1; CD80_HUMAN; CD80; Activation B7-1 antigen; CTLA-4 counter-receptor B7.1 (B7); CD80_MOUSE; Activation B7-1 antigen (B7); CD80 molecule; CD80 antigen (CD28 antigen ligand 1, B7-1 antigen); B-lymphocyte activation antigen B7
Dilution	WB=1:500-1000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Cd80
Synonyms	B7
Function	Costimulatory molecule that belongs to the immunoglobulin superfamily that plays an important role in T-lymphocyte activation (PubMed:16339518, PubMed:1714935). Acts as the primary auxiliary signal augmenting the MHC/TCR signal in naive T-cells by acting as a ligand for the CD28 receptor which is constitutively expressed on the cell surface of T-cells (PubMed:16339518). In turn, activates different signaling pathways such as NF-kappa-B or MAPK leading to the production of different cytokines (By similarity). Also acts as an inhibitor of T- cell activation by acting as a ligand for CTLA4, a decoy receptor, thereby blocking CD28-mediated T-cell priming (By similarity). In addition, CD28/CD80 costimulatory signal stimulates glucose metabolism and ATP synthesis of T-cells by activating the PI3K/Akt signaling pathway (By similarity). Also acts as a regulator of PDL1/PDCD1 interactions to limit excess engagement of PDL1 and its inhibitory role in immune responses (By similarity). Expressed on B-cells, plays a critical role in regulating interactions between B-cells and T-cells in both early and late germinal center responses, which are crucial for the generation of effective humoral immune responses (PubMed:22450810).
Cellular Location	Cell membrane; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P33681}
Tissue Location	Expressed on activated B-cells, gamma interferon stimulated monocytes and non-circulating B-cell malignancies

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.