

CD80 Rabbit pAb

Catalog # AP96276

Product Information

Application	WB, E
Primary Accession	Q00609
Other Accession	Q00609
Reactivity	Human, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34590
Physical State	Liquid
Immunogen	Recombinant mouse CD80 protein
Epitope Specificity	38-246/306
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Single-pass type I membrane protein.
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
Target/Specificity	Expressed on activated B-cells, macrophages and dendritic cells.
Dilution	WB=1:500-2000,ELISA=1:5000-10000

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.
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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'.