

Anti-B7-1/CD80 Antibody
Catalog # ABO10689**Specification**

Anti-B7-1/CD80 Antibody - Product Information

Application	WB
Primary Accession	P33681
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for T-lymphocyte activation antigen CD80(CD80) detection. Tested with WB in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-B7-1/CD80 Antibody - Additional Information

Gene ID 941

Other Names

T-lymphocyte activation antigen CD80, Activation B7-1 antigen, BB1, CTLA-4 counter-receptor B7.1, B7, CD80, CD80, CD28LG, CD28LG1, LAB7

Calculated MW

33048 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Membrane; Single-pass type I membrane protein.

Tissue Specificity

Expressed on activated B-cells, macrophages and dendritic cells.

Protein Name

T-lymphocyte activation antigen CD80

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human CD80(57-71aa EELAQTRIYWQKEKK).

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Contains 1 Ig-like C2-type (immunoglobulin-like) domain.

Anti-B7-1/CD80 Antibody - Protein Information

Name CD80

Synonyms CD28LG, CD28LG1, LAB7

Function

Costimulatory molecule that belongs to the immunoglobulin superfamily that plays an important role in T-lymphocyte activation (PubMed: [38467718](http://www.uniprot.org/citations/38467718)). Acts as the primary auxiliary signal augmenting the MHC/TCR signal in naive T-cells together with the CD28 receptor which is constitutively expressed on the cell surface of T-cells (PubMed: [12196291](http://www.uniprot.org/citations/12196291)). In turn, activates different signaling pathways such as NF-kappa-B or MAPK leading to the production of different cytokines (PubMed: [10438913](http://www.uniprot.org/citations/10438913)). In addition, CD28/CD80 costimulatory signal stimulates glucose metabolism and ATP synthesis of T-cells by activating the PI3K/Akt signaling pathway (PubMed: [12121659](http://www.uniprot.org/citations/12121659)). Also acts as a regulator of PDL1/PDCD1 interactions to limit excess engagement of PDL1 and its inhibitory role in immune responses (PubMed: [36727298](http://www.uniprot.org/citations/36727298)). 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 (By similarity).

Cellular Location

Cell membrane; Single-pass type I membrane protein

Tissue Location

Expressed on activated B-cells, macrophages and dendritic cells

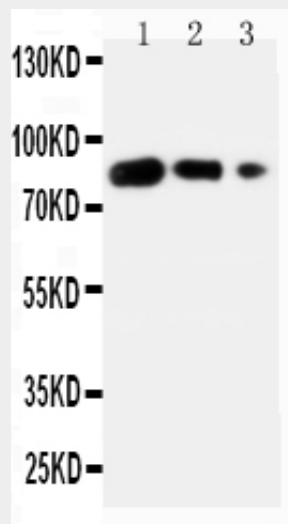
Anti-B7-1/CD80 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-B7-1/CD80 Antibody - Images



Anti-CD80 antibody, ABO10689, Western blotting
Lane 1: Recombinant Human CD80 Protein 10ng
Lane 2: Recombinant Human CD80 Protein 5ng
Lane 3: Recombinant Human CD80 Protein 2.5ng

Anti-B7-1/CD80 Antibody - Background

Cluster of Differentiation 80(also CD80 and B7-1) is a protein found on activated B cells and monocytes that provides a costimulatory signal necessary for T cell activation and survival. It is the ligand for two different proteins on the T cell surface: CD28(for autoregulation and intercellular association) and CTLA-4(for attenuation of regulation and cellular disassociation). CD80 works in tandem with CD86 to prime T cells. The CD80 genes encode B7-1 which are structurally similar members of the immunoglobulin superfamily expressed on a variety of hematopoietic cell types. Reeves et al.(1997) stated that B7-1 and B7-2 provide a costimulatory signal to T cells by interacting with CD28 and CTLA4.