

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

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**Anti-B7-1/CD80 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P33681</a>
Host	<b>Rabbit</b>
Reactivity	<b>Human</b>
Clonality	<b>Polyclonal</b>
Format	<b>Lyophilized</b>

**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<br>

**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 Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**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 r°Constitution, 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:<a href="http://www.uniprot.org/citations/38467718" target="\_blank">38467718</a>). 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:<a href="http://www.uniprot.org/citations/12196291" target="\_blank">12196291</a>). In turn, activates different signaling pathways such as NF-kappa-B or MAPK leading to the production of different cytokines (PubMed:<a href="http://www.uniprot.org/citations/10438913" target="\_blank">10438913</a>). In addition, CD28/CD80 costimulatory signal stimulates glucose metabolism and ATP synthesis of T-cells by activating the PI3K/Akt signaling pathway (PubMed:<a href="http://www.uniprot.org/citations/12121659" target="\_blank">12121659</a>). Acts also as a regulator of PDL1/PDCD1 interactions to limit excess engagement of PDL1 and its inhibitory role in immune responses (PubMed:<a href="http://www.uniprot.org/citations/36727298" target="\_blank">36727298</a>). 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

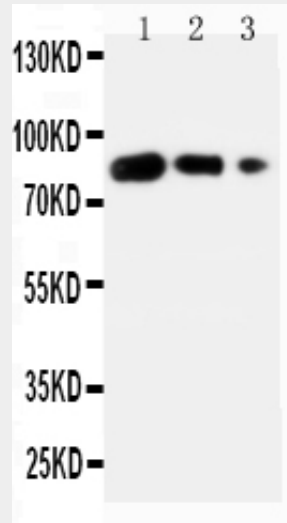
### Anti-B7-1/CD80 Antibody - Protocols

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.