

**Anti-CD80 (B7-1) Antibody**  
**Mouse Monoclonal Antibody**  
**Catalog # AH13620**

**Specification**

---

**Anti-CD80 (B7-1) Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | ,3,4,10,               |
| Primary Accession | <a href="#">P33681</a> |
| Other Accession   | <a href="#">838</a>    |
| Reactivity        | Human                  |
| Host              | Mouse                  |
| Clonality         | Monoclonal             |
| Isotype           | Mouse / IgG1, kappa    |
| Calculated MW     | 33048                  |

**Anti-CD80 (B7-1) Antibody - Additional Information**

**Gene ID** 941

**Other Names**

Activation B7-1 antigen; B lymphocyte activation antigen B7; B7; B7-1; BB1; CD28 antigen ligand 1; CD28LG; CD28LG1; CD80; Costimulatory factor CD80; CTLA-4 counter-receptor B7.1; LAB7; T-lymphocyte activation antigen CD80

**Format**

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

**Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

**Precautions**

Anti-CD80 (B7-1) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Anti-CD80 (B7-1) 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: <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: <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-CD80 (B7-1) 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-CD80 (B7-1) Antibody - Images**

### **Anti-CD80 (B7-1) Antibody - Background**

T cell proliferation and lymphokine production are triggered by occupation of the TCR by antigen, followed by a costimulatory signal that is delivered by a ligand expressed on antigen presenting cells. The B7-related cell surface proteins CD80 (B7-1) and CD86 (B7-2) are expressed on antigen presenting cells bind the homologous T cell receptors CTLA-4 (cytotoxic T lymphocyte-associated protein-4) and CD28 and trigger costimulatory signals for optimal T cell activation. CTLA-4 shares 31% overall amino acid identity with CD28 and it has been proposed that CD28 and CTLA-4 are functionally redundant. SLAM is a novel receptor on T cells that, when engaged, potentiates T cell expansion in a CD28-independent manner. B7, also designated BB1, is another ligand or counter receptor for CD28 and CTLA-4 that is expressed on the antigen-presenting cell.