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

Specification

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

Application	**IF, FC, E**
Primary Accession	P33681
Other Accession	838
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

Application Note
IF~~1:50~200<br \>FC~~1:10~50<br \>E~~N/A

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:<a href="http://www.uniprot.org/citations/38467718"

target="_blank">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). In turn, activates different signaling pathways such as NF-kappa-B or MAPK leading to the production of different cytokines (PubMed: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). Also acts as a regulator of PDL1/PDCD1 interactions to limit excess engagement of PDL1 and its inhibitory role in immune responses (PubMed: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-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 Cytomety
- 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.