10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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 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: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). Acts also 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-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

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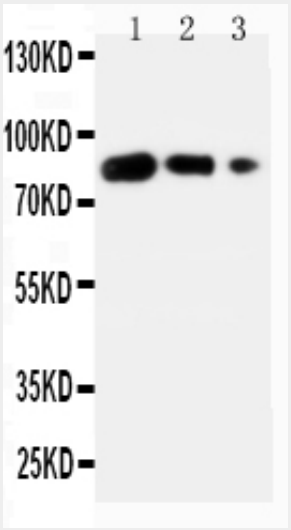
- Flow Cytomety
- Cell Culture

Anti-B7-1/CD80 Antibody - Images



Anti-CD80 antibody, ABO10689, Western blottingLane 1: Recombinant Human CD80 Protein 10ngLane 2: Recombinant Human CD80 Protein 5ngLane 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.