

# CD86 Antibody

Catalog # ASC12117

## Product Information

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<b>Application</b>	WB, IHC-P, IF, E
<b>Primary Accession</b>	<a href="#">P42082</a>
<b>Other Accession</b>	<a href="#">NP_787058</a>
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Clone Names</b>	CD86
<b>Calculated MW</b>	34666

## Additional Information

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<b>Gene ID</b>	12524
<b>Alias Symbol</b>	CD86
<b>Other Names</b>	CD86 Antibody: CD86 molecule, B70, B7-2, B7.2, LAB72, CD28LG2
<b>Target/Specificity</b>	At least five isoforms of CD86 are known to exist; this antibody will detect all five isoforms.
<b>Reconstitution &amp; Storage</b>	CD86 antibody can be stored at 4 °C for three months and -20 °C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
<b>Precautions</b>	CD86 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	Cd86
<b>Function</b>	Costimulatory molecule that belongs to the immunoglobulin superfamily that plays an important role in T-lymphocyte activation (By similarity). Acts as the primary auxiliary signal augmenting the MHC/TCR signal in naive T-cells by acting as a ligand for the CD28 receptor which is constitutively expressed on the cell surface of T- cells (By similarity). May play a critical role in the early events of T-cell activation and costimulation of naive T-cells, such as deciding between immunity and anergy that is made by T-cells within 24 hours after activation (By similarity). Also involved in the regulation of B cells function, plays a role in regulating the level of IgG(1) produced (PubMed: <a href="#">23241883</a> ). Upon CD40 engagement, activates NF-kappa-B signaling pathway via phospholipase C and protein kinase C activation (PubMed: <a href="#">23241883</a> ). Also acts as an inhibitor of T-cell activation by acting as a ligand for CTLA4, a decoy receptor, thereby blocking CD28- mediated T-cell priming (PubMed: <a href="#">7504059</a> ,

PubMed:[7513726](#)).

<b>Cellular Location</b>	Cell membrane {ECO:0000250   UniProtKB:P42081}; Single-pass type I membrane protein {ECO:0000250   UniProtKB:P42081}
<b>Tissue Location</b>	Expressed on the surfaces of antigen-presenting cells.

## Background

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CD86, also known as B7-2, is a type I membrane protein that is a member of the immunoglobulin superfamily. Like the related protein CD80, this protein is expressed by antigen-presenting cells, and is the ligand for two proteins at the cell surface of T cells, CD28 and the cytotoxic T-lymphocyte-associated protein 4 (CTLA-4). Binding of this protein with CD28 antigen is a costimulatory signal for activation of the T-cell and induces T-cell proliferation and cytokine production. CTLA-4 binding negatively regulates T-cell activation and diminishes the immune response (1). Blocking the CTLA-4-CD80/CD86 interaction has been shown to enhance T-cell functions in acute lymphoblastic leukemia (ALL), suggesting that this pathway may be an attractive target for future cancer immunotherapy (2).

## References

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Lane P. Regulation of T and B cell responses by modulating interactions between CD28/CTLA-4 and their ligands, CD80 and CD86. *Ann NY Acad Sci* 1997; 815:392-400. Feucht J, Kayser S, Gorodezki D, et al. T-cell responses against CD19+ pediatric acute lymphoblastic leukemia mediated by bispecific T-cell engager (BiTE) are regulated contrarily by PD-L1 and CD80/CD86 on leukemic blasts. *Oncotarget* 2016; 7:76902-19.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.