

Anti-CD86/B7-2 Antibody

Catalog # ABO11942

Product Information

Application	WB, IHC-F, FC, ICC
Primary Accession	P42081
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for T-lymphocyte activation antigen CD86(CD86) detection. Tested with WB, IHC-F, ICC, FCM in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	942
Other Names	T-lymphocyte activation antigen CD86, Activation B7-2 antigen, B70, BU63, CTLA-4 counter-receptor B7.2, FUN-1, CD86, CD86, CD28LG2
Calculated MW	37682
Application Details	Immunohistochemistry(Frozen Section), 0.5-1 μ g/ml Immunocytochemistry, 0.5-1 μ g/ml Western blot, 0.1-0.5 μ g/ml Flow Cytometry, 1-3 μ g/1x10 ⁶ cells
Subcellular Localization	Cell membrane; Single-pass type I membrane protein.
Tissue Specificity	Expressed by activated B-lymphocytes and monocytes.
Source	Eukaryota
Protein Name	T-lymphocyte activation antigen CD86
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E.coli-derived human CD86 recombinant protein (Position: A24-F329). Human CD86 shares 50% amino acid (aa) sequence identity with mouse CD86.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20 °C for one year. After reconstitution, 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.

Protein Information

Name	CD86
Synonyms	CD28LG2
Function	Costimulatory molecule that belongs to the immunoglobulin superfamily that plays an important role in T-lymphocyte activation (PubMed: 12196291 , PubMed: 7694363). 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 (PubMed: 12196291 , PubMed: 7694363). 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 (PubMed: 7527824). Also involved in the regulation of B cells function, plays a role in regulating the level of IgG(1) produced. Upon CD40 engagement, activates NF-kappa-B signaling pathway via phospholipase C and protein kinase C activation (By similarity). 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: 11279501).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Expressed on the surfaces of antigen-presenting cells.

Background

Cluster of Differentiation 86 (also known as CD86 and B7-2) is a protein expressed on antigen-presenting cells that provides costimulatory signals necessary for T cell activation and survival. The CD86 gene encodes a type I membrane protein that is a member of the immunoglobulin superfamily. Using fluorescence in situ hybridization mapping, the CD86, like CD80, was mapped to human 3q21. The antigen presentation coactivators B71 and B72, which are important in other immune-mediated thyroid diseases, are important for lymphocytic infiltration and the immune response against thyroid carcinoma.

Images



Figure 1. Western blot analysis of CD86 using anti-CD86 antibody (ABO11942). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: Recombinant Human CD86 Protein 0.5ng. After electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CD86 antigen affinity purified polyclonal antibody (Catalog # ABO11942) at 0.5 µg/mL overnight at 4 °C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using

an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for CD86 at approximately 38KD. The expected band size for CD86 is at 38KD.

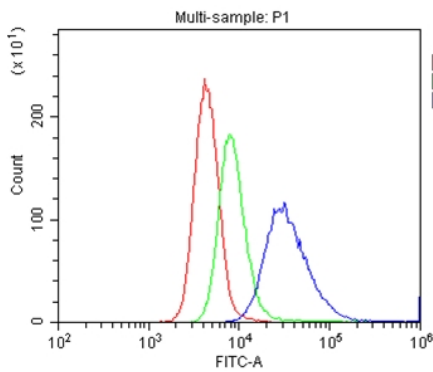


Figure 2. Flow Cytometry analysis of U937 cells using anti-CD86 antibody (ABO11942). Overlay histogram showing U937 cells stained with ABO11942 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD86 Antibody (ABO11942, 1 μ g/1x10⁶ cells) for 30 min at 20 $^{\circ}$ C. DyLight[®]488 conjugated goat anti-rabbit IgG (BA1127, 5-10 μ g/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 $^{\circ}$ C. Isotype control antibody (Green line) was rabbit IgG (1 μ g/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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