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Anti-Cd86 Antibody Picoband™

Catalog Number: A00220-4

About Cd86

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.

Overview

Product Name	Anti-Cd86 Antibody Picoband™
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Cd86 Antibody Picoband™ catalog # A00220-4. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Mouse, Rat.
Application	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P42082

Technical Details

Immunogen	E.coli-derived mouse Cd86 recombinant protein (Position: T35-E221). Mouse Cd86 shares 61.9 % amino acid (aa) sequence identity with human CD86.
Predicted Reactive Species	Chicken
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.25-0.5 ug/ml, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Rat Flow Cytometry, 1-3 ug/1x10^6 cells, Mouse Direct ELISA, 0.1-0.5 ug/ml, Mouse

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Anti-Cd86 Antibody Picoband™ (A00220-4) Images

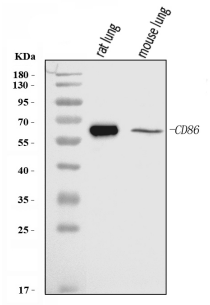

Figure 1. Western blot analysis of Cd86 using anti-Cd86 antibody (A00220-4).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: rat lung tissue lysates,
Lane 2: mouse lung tissue lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 # A00220-4) at 0.5 ug/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 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Cd86 at approximately 60-80 kDa. The expected band size for Cd86 is at 35 kDa.

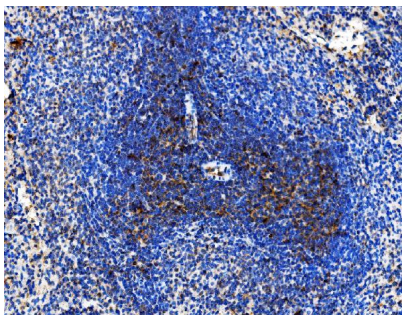

Figure 2. IHC analysis of Cd86 using anti-Cd86 antibody (A00220-4).
Cd86 was detected in a paraffin-embedded section of rat spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Cd86 Antibody (A00220-4) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

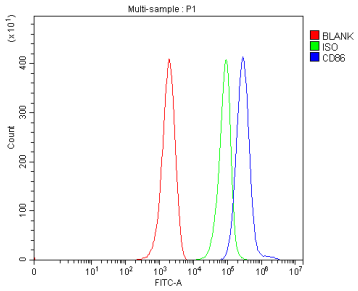

Figure 3. Flow Cytometry analysis of ANA-1 cells using anti-Cd86 antibody (A00220-4).
Overlay histogram showing ANA-1 cells stained with A00220-4 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Cd86 Antibody (A00220-4, 1 ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

2 Publications Citing This Product

1. PubMed ID: 10.1016/j.brainresbull.2019.07.019, Lithium chloride promoted hematoma resolution after intracerebral hemorrhage through

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GSK-3beta-mediated pathways-dependent microglia phagocytosis and M2-phenotype differentiation, angiogenesis and neurogenesis in a rat model

2. PubMed ID: 10.1080/17435390.2018.1425501, Macrophage polarization and activation at the interface of multi-walled carbon nanotube-induced pulmonary inflammation and fibrosis

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