

Anti-Cd80 Antibody Picoband™

Catalog Number: A00196-3

About Cd80

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.

Overview

Product Name	Anti-Cd80 Antibody Picoband™
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Cd80 Antibody Picoband™ catalog # A00196-3. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human, Mouse.
Application	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
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	Q00609

Technical Details

Immunogen	E.coli-derived mouse Cd80 recombinant protein (Position: D62-K92).
Predicted Reactive Species	Chicken
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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.
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, Human, Mouse

Flow Cytometry, 1-3 ug/ 1×10^6 cells, Mouse

Direct ELISA, 0.1-0.5 ug/ml, Mouse

Anti-Cd80 Antibody Picoband™ (A00196-3) Images

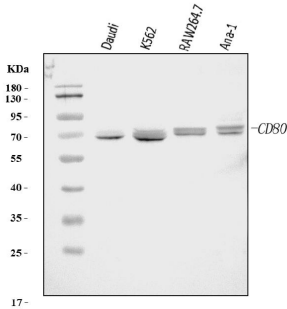


Figure 1. Western blot analysis of Cd80 using anti-Cd80 antibody (A00196-3).

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: human Daudi whole cell lysates,

Lane 2: human K562 whole cell lysates,

Lane 3: mouse RAW264.7 whole cell lysates,

Lane 4: mouse ANA-1 whole cell 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-Cd80 antigen affinity purified polyclonal antibody (Catalog # A00196-3) 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 Cd80 at approximately 70 kDa. The expected band size for Cd80 is at 33 kDa.

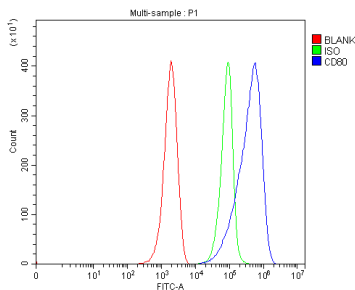


Figure 2. Flow Cytometry analysis of ANA-1 cells using anti-Cd80 antibody (A00196-3).

Overlay histogram showing ANA-1 cells stained with A00196-3 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Cd80 Antibody (A00196-3, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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