

Anti-CD5 Antibody Picoband™

Catalog Number: A00480-1

About CD5

CD5 is a member of the scavenger receptor cysteine-rich (SRCR) superfamily. Members of this family are secreted or membrane-anchored proteins mainly found in cells associated with the immune system. In humans, the gene is located on the long arm of chromosome 11. This protein is a type-I transmembrane glycoprotein found on the surface of thymocytes, T lymphocytes and a subset of B lymphocytes. The encoded protein contains three SRCR domains and may act as a receptor to regulate T-cell proliferation. Alternative splicing results in multiple transcript variants encoding different isoforms.

Overview

Product Name	Anti-CD5 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CD5 Antibody Picoband™ catalog # A00480-1. Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	Store 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 freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P06127

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human CD5, which shares 92.1% and 89.5% amino acid (aa) sequence identity with mouse and rat CD5, respectively.
Predicted Reactive Species	Chicken
Recommended Detection Systems	Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB.
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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells</p>

Anti-CD5 Antibody Picoband™ (A00480-1) Images

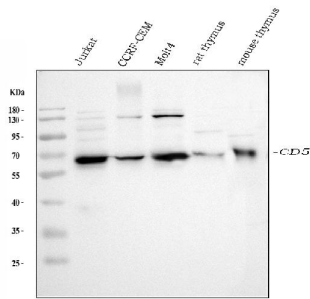


Figure 1. Western blot analysis of CD5 using anti-CD5 antibody (A00480-1).

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 Jurkat whole cell lysates,
Lane 2: human CCRF-CEM whole cell lysates,
Lane 3: human MOLT-4 whole cell lysates,
Lane 4: rat thymus tissue lysates,
Lane 5: mouse thymus 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-CD5 antigen affinity purified polyclonal antibody (Catalog # A00480-1) 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 CD5 at approximately 67 kDa. The expected band size for CD5 is at 54 kDa.

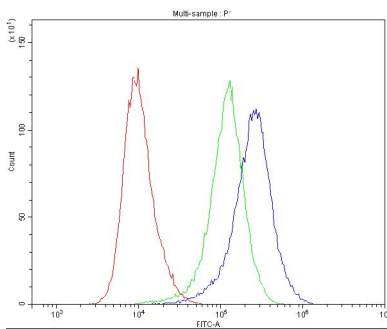


Figure 2. Flow Cytometry analysis of PBMC cells using anti-CD5 antibody (A00480-1).

Overlay histogram showing PBMC cells stained with A00480-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD5 Antibody (A00480-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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