

Anti-CD2/CD2 Antibody Picoband™

Catalog Number: PB9929

About Cd2

CD2 (cluster of differentiation 2) is a cell adhesion molecule found on the surface of T cells and natural killer (NK) cells. It has also been called T-cell surface antigen T11/Leu-5, LFA-2, LFA-3 receptor, erythrocyte receptor and rosette receptor. Monoclonal antibodies directed against CD2 inhibit the formation of rosettes with sheep erythrocytes, indicating that CD2 is the erythrocyte receptor or is closely associated with it. CD2 is one of the earliest T-cell markers, being present on more than 95% of thymocytes. Due to its structural characteristics, CD2 is a member of the immunoglobulin superfamily; it possesses two immunoglobulin-like domains in its extracellular portion. The localization of CD2 to 1p13 is established by in situ hybridization. CD2 interacts with other adhesion molecules, such as lymphocyte function-associated antigen-3 (LFA-3/CD58) in humans, or CD48 in rodents, which are expressed on the surfaces of other cells. With the use of transgenic mice, such an LCR is identified within the 3-prime flanking region of the human CD2 gene.

Overview

Product Name	Anti-CD2/CD2 Antibody Picoband™
Reactive Species	Mouse
Description	Boster Bio Anti-CD2/CD2 Antibody Picoband™ catalog # PB9929. Tested in IHC, WB applications. This antibody reacts with Mouse.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	P08920

Technical Details

Immunogen	E. coli-derived mouse CD2 recombinant protein (Position: R23-S203). Mouse CD2 shares 49.7% and 73.3% amino acid (aa) sequence identity with human and rat CD2, respectively.
Predicted Reactive Species	Hamster
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.
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>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, By Heat</p> <p>Western blot, 0.1-0.5ug/ml, Mouse</p>

Anti-CD2/CD2 Antibody Picoband™ (PB9929) Images

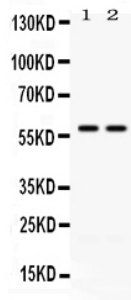


Figure 1. Western blot analysis of CD2 using anti-CD2 antibody (PB9929). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: mouse cardiac muscle tissue lysates,
Lane 2: HEPA 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-CD2 antigen affinity purified polyclonal antibody (Catalog # PB9929) 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 CD2 at approximately 58 kDa. The expected band size for CD2 is at 38 kDa.

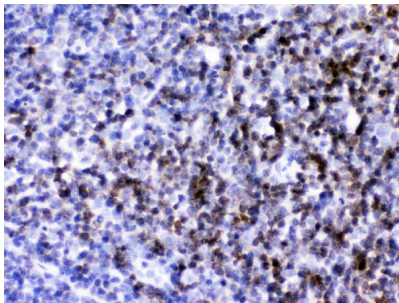


Figure 2. IHC analysis of CD2 using anti-CD2 antibody (PB9929).

CD2 was detected in a paraffin-embedded section of mouse lymphaden 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 1 ug/ml rabbit anti-CD2 Antibody (PB9929) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

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