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antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-CD47 Antibody Picoband®

Catalog Number: A00360-2

About CD47

CD47, also known as IAP or MER6, is a transmembrane protein that in humans is encoded by the CD47 gene. CD47 gene belongs to the immunoglobulin superfamily. This gene is mapped to 3q13.12. CD47 gene encodes a membrane protein, which is involved in the increase in intracellular calcium concentration that occurs upon cell adhesion to extracellular matrix. The encoded protein is also a receptor for the C-terminal cell binding domain of thrombospondin, and it may play a role in membrane transport and signal transduction. This gene has broad tissue distribution, and is reduced in expression on Rh erythrocytes.

Overview

Product Name	Anti-CD47 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-CD47 Antibody Picoband® catalog # A00360-2. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2mg Na2HPO4, 0.05 mg 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	Q08722

Technical Details

Immunogen	E.coli-derived human CD47 recombinant protein (Position: Q19-E323).
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	Western blot, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml Flow Cytometry (Fixed), 1-3ug/1x10^6 ELISA, 0.1-0.5ug/ml

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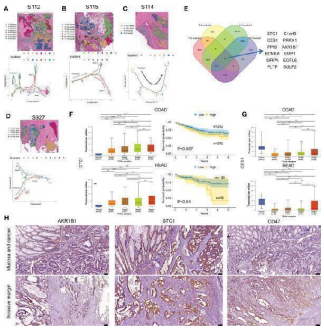
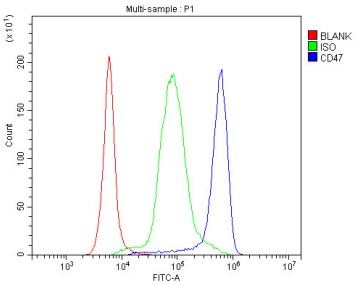
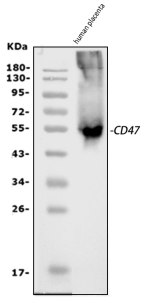
Anti-CD47 Antibody Picoband® (A00360-2) Images



Cell differentiation trajectories in CRC obtained by pseudotime analysis. (A–D) tSNE map shows the results of the dimensionality reduction and clustering analysis of S112 (A) , S115 (B) , S114 (C) , and 927 (D) (up). Results of pseudotime cell trajectory in S112 (A) , S115 (B) , S114 (C) , and S927 (D) (down). (E) Twelve genes were screened by invasive modules. (F) The relationship of STC1 expression level and cancer stage/progression-free survival in colon cancer (up) and rectal cancer (down) from TCGA database. (G) The relationship of CES1 expression level and cancer stage in colon cancer (up) and rectal cancer (down) from TCGA database. (H) Immunohistochemical staining showed the expression of AKR1B1(left panel), STC1(middle panel), and CD47(right panel) in Mucosa and cancer(up) and Invasive margin(down) (n=45). The scale bars on the lower right are 100 μm. *P < 0.05, **P < 0.01 and ***P < 0.001. NS, not significant difference.Index in PubMed under a CC BY license. PMID: 36816947



Flow Cytometry analysis of human PBMC cells using anti-CD47 antibody (A00360-2). Overlay histogram showing human PBMC cells stained with A00360-2 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-CD47 Antibody (A00360-2, 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of CD47 using anti-CD47 antibody (A00360-2). 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 placenta 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-CD47 antigen affinity purified polyclonal antibody (Catalog # A00360-2) 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 CD47 at approximately 50 kDa. The expected band size for CD47 is at 35 kDa.

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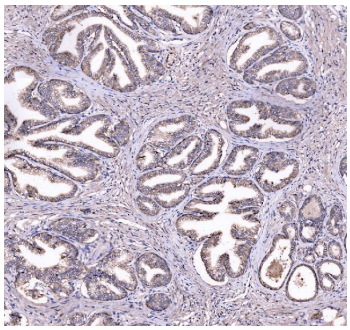

IHC analysis of CD47 using anti-CD47 antibody (A00360-2). CD47 was detected in a paraffin-embedded section of human prostate cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD47 Antibody (A00360-2) 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.

Anti-CD47 Antibody

For Research Use Only. Not for use in diagnostic procedures.