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antibody and ELISA experts

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Anti-S100A9 Antibody Picoband™

Catalog Number: PB9677

About S100A9

S100 calcium-binding protein A9 (S100A9), also known as migration inhibitory factor-related protein 14 (MRP14) or calgranulin B, is a protein that in humans is encoded by the S100A9 gene. S100-A9 is a member of the S100 family of proteins containing 2 EF hand calcium-binding motifs. And S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21. This protein may function in the inhibition of casein kinase.

Overview

Product Name	Anti-S100A9 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-S100A9 Antibody Picoband™ catalog # PB9677. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human.
Application	ELISA, Flow Cytometry, IF, IHC, ICC, 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	P06702

Technical Details

Immunogen	E. coli-derived human S100A9 recombinant protein (Position: T2-P114). Human S100A9 shares 59.8% and 64.5% amino acid (aa) sequence identity with mouse and rat S100A9, 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) and ICC.
Cross Reactivity	No cross-reactivity with recombinant mouse S100A9 is observed.
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: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, By Heat ELISA , 0.1-0.5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry, 1-3ug/1x10^6 cells, Human Western blot, 0.1-0.5ug/ml, Human

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Anti-S100A9 Antibody Picoband™ (PB9677) Images

Figure 1. Western blot analysis of S100A9 using anti-S100A9 antibody (PB9677).
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 40 ug of sample under reducing conditions.
Lane 1: A431 Whole Cell Lysate,
Lane 2: MCF-7 Whole Cell Lysate.
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-S100A9 antigen affinity purified polyclonal antibody (Catalog # PB9677) 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 S100A9 at approximately 13 kDa. The expected band size for S100A9 is at 13 kDa.

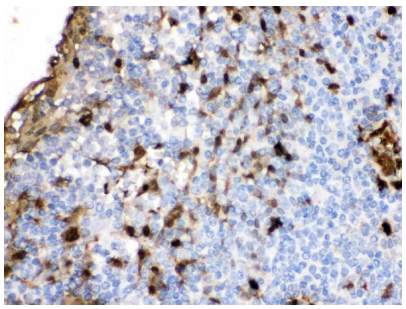

Figure 2. IHC analysis of S100A9 using anti-S100A9 antibody (PB9677).
S100A9 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-S100A9 Antibody (PB9677) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

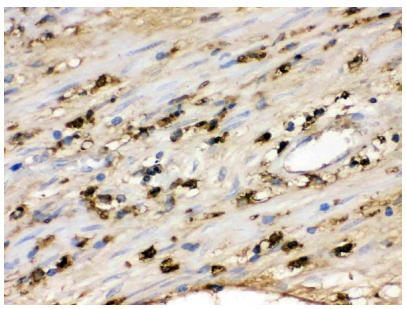

Figure 3. IHC analysis of S100A9 using anti-S100A9 antibody (PB9677).
S100A9 was detected in a paraffin-embedded section of human appendicitis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-S100A9 Antibody (PB9677) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 4. IF analysis of S100A9 using anti-S100A9 antibody (PB9677).
S100A9 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using

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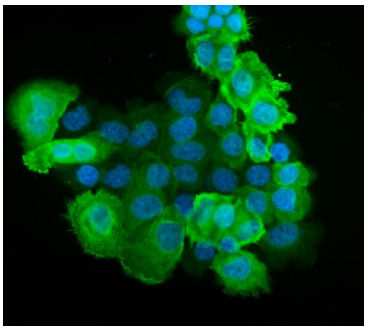

IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-S100A9 Antibody (PB9677) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

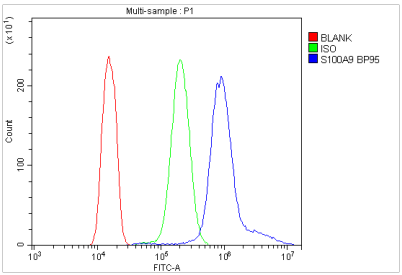

Figure 5. Flow Cytometry analysis of A431 cells using anti-S100A9 antibody (PB9677).
Overlay histogram showing A431 cells stained with PB9677 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-S100A9 Antibody (PB9677, 1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

1 Publications Citing This Product

1. PubMed ID: 25100170, Age Dependent Changes in Cartilage Matrix, Subchondral Bone Mass, and Estradiol Levels in Blood Serum, in Naturally Occurring Osteoarthritis in Guinea Pigs

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