BOSTER BIOLOGICAL TECHNOLOGY
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Anti-SQSTM1/p62 Antibody Picoband®

Catalog Number: PA1955

About SQSTM1

SQSTM1 (Sequestosome-1), also known as Ubiquitin-Binding Protein P62 or P62, is a protein that in humans is encoded by the SQSTM1 gene. The Src homology type 2 (SH2) domain is a highly conserved motif of about 100 amino acids which mediates protein-protein interactions by binding to phosphotyrosine.p56-lck, a T-cell-specific src family tyrosine kinase with an SH2 domain, is involved in T-cell signal transduction. The International Radiation Hybrid Mapping Consortium mapped the p62 gene to chromosome 5q35. Park et al. (1995) found that the p56-lck SH2 domain binds to p62 at the ser59 of p62 only when that serine is phosphorylated. Joung et al. (1996) expressed epitope-tagged p62 in Hela cells and showed that the expressed protein bound to the lck SH2 domain and that this binding was dependent on the N-terminal 50 amino acids of p62 but not on the tyrosine residue in this region.

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Overview

Product Name	Anti-SQSTM1/p62 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-SQSTM1/p62 Antibody catalog # PA1955. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. 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	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	Q13501

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Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human SQSTM1, different from the related rat and mouse sequences by one amino acid.
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 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	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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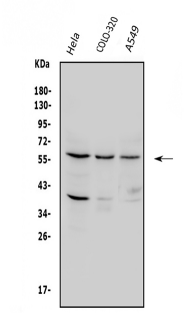
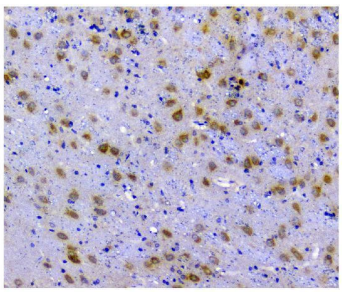
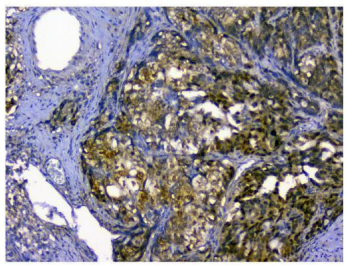
Anti-SQSTM1/p62 Antibody Picoband® (PA1955) Images



Western blot analysis of SQSTM1 using anti-SQSTM1 antibody (PA1955). 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 50ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human COLO-320 whole cell lysates, Lane 3: human A549 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-SQSTM1 antigen affinity purified polyclonal antibody (Catalog # PA1955) 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 1:10000 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 SQSTM1 at approximately 60KD. The expected band size for SQSTM1 is at 48KD.



IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PA1955). SQSTM1 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PA1955) 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.



IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PA1955). SQSTM1 was detected in paraffin-embedded section of human gastric cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PA1955) 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.

IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PA1955). SQSTM1 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope

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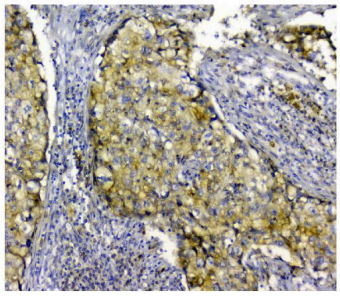
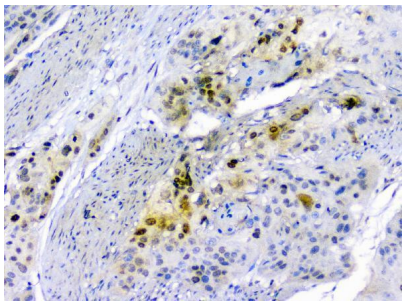
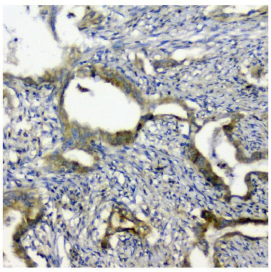


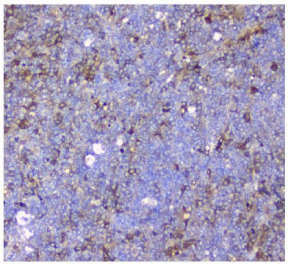
retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PA1955) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PA1955). SQSTM1 was detected in paraffin-embedded section of human oesophagus squama cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PA1955) 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.



IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PA1955). SQSTM1 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PA1955) 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.



IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PA1955). SQSTM1 was detected in paraffin-embedded section of human sarcoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PA1955) 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.

IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PA1955). SQSTM1 was detected in paraffin-embedded section of human cholangiocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated

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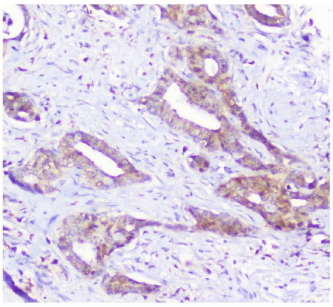
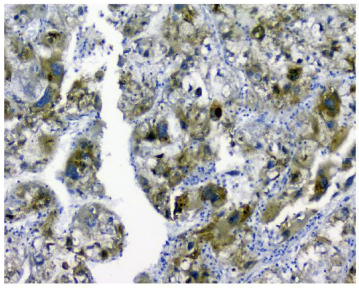
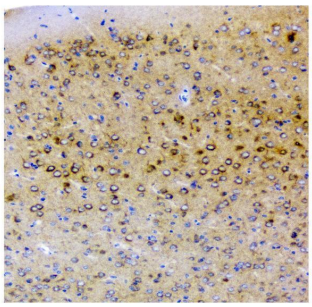


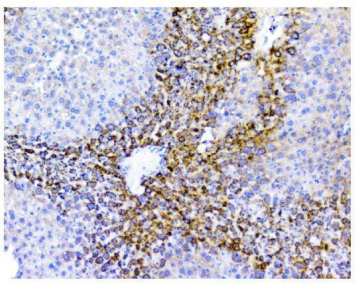
with 1ug/ml rabbit anti-SQSTM1 Antibody (PA1955) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PA1955). SQSTM1 was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PA1955) 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.



IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PA1955). SQSTM1 was detected in paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PA1955) 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.



IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PA1955). SQSTM1 was detected in paraffin-embedded section of rat liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PA1955) 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.

IF analysis of SQSTM1 using anti-SQSTM1 antibody (PA1955). SQSTM1 was detected in immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-SQSTM1 Antibody (PA1955) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as

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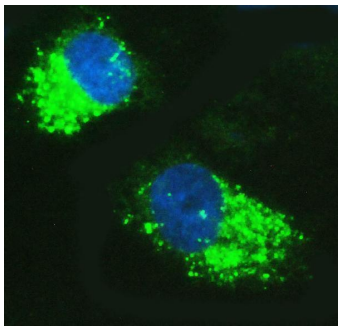
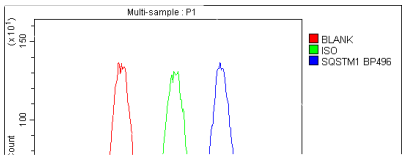


secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of A549 cells using anti-SQSTM1 antibody (PA1955). Overlay histogram showing A549 cells stained with PA1955 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SQSTM1 Antibody (PA1955,1ug/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.

10 Publications Citing This Product

1. PubMed ID: -, Liu, J.,Qin, X.,Ma, W.,Jia, S.,Zhang, X.,Yang, X. ... Jin, F. (2021). Corilagin induces apoptosis and autophagy in NRF2-addicted U251 glioma cell line. Molecular Medicine Reports,23,320. https://doi.org/10.3892/mmr.2021.11959

2. PubMed ID: 32098126, Zhong W,Tang X,Liu Y,Zhou C,Liu P,Li E,Zhong P,Lv H,Zou Q,Wang M.Benzoxazole Derivative K313 Induces Cell Cycle Arrest, Apoptosis and Autophagy Blockage and Suppresses mTOR/p70S6K Pathway in Nalm-6 and Daudi Cells.Molecules.2020 Feb 21;25(4):971.doi:10.33

3. PubMed ID: 32425551, Liu X,Feng C,Wei G,Kong W,Meng H,Du Y,Li J.Mitofusin1 Is a Major Mediator in Glucose-Induced Epithelial-to-Mesenchymal Transition in Lung Adenocarcinoma Cells.Onco Targets Ther.2020 Apr 24;13:3511-3523.doi:10.2147/OTT.S238714.PMID:32425551;PMCID:PMC718794

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