

Anti-SQSTM1/p62 Antibody Picoband™

Catalog Number: PB9444

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.

Overview

Product Name	Anti-SQSTM1/p62 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-SQSTM1/p62 Antibody Picoband™ catalog # PB9444. Tested in IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IF, IHC, ICC, 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	Q13501

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human SQSTM1/p62, identical to the related mouse and rat sequences.
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), IHC(F) 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	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: Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat Immunofluorescence, 2ug/ml, Human Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Mouse, Rat Immunocytochemistry, 0.5-1ug/ml, Human

Anti-SQSTM1/p62 Antibody Picoband™ (PB9444) Images

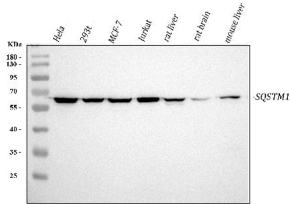


Figure 1. Western blot analysis of SQSTM1 using anti-SQSTM1 antibody (PB9444).

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 Hela whole cell lysates,
Lane 2: human 293T whole cell lysates,
Lane 3: human MCF-7 whole cell lysates,
Lane 4: human Jurkat whole cell lysates,
Lane 5: rat liver tissue lysates,
Lane 6: rat brain tissue lysates,
Lane 7: mouse liver 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-SQSTM1 antigen affinity purified polyclonal antibody (Catalog # PB9444) 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 SQSTM1 at approximately 62 kDa. The expected band size for SQSTM1 is at 48 kDa.

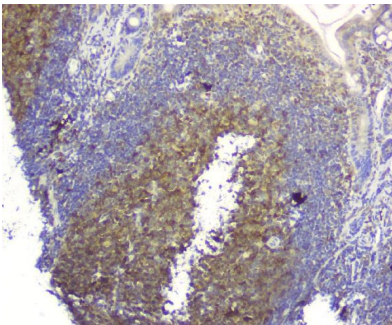


Figure 2. IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PB9444).

SQSTM1 was detected in paraffin-embedded section of mouse small intestine tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PB9444) 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.

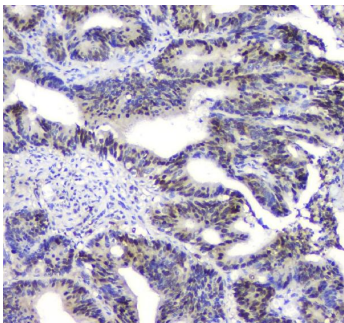


Figure 3. IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PB9444).

SQSTM1 was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PB9444) 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.

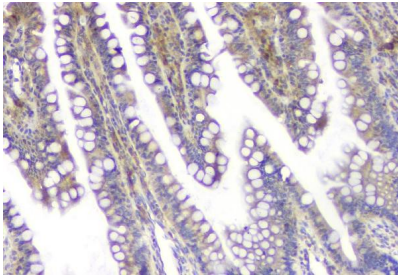


Figure 4. IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PB9444).

SQSTM1 was detected in paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PB9444) 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.

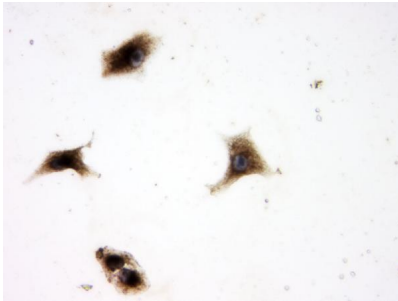


Figure 5. IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PB9444).

SQSTM1 was detected in immunocytochemical section of A549 cell. 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 1ug/ml rabbit anti-SQSTM1 Antibody (PB9444) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

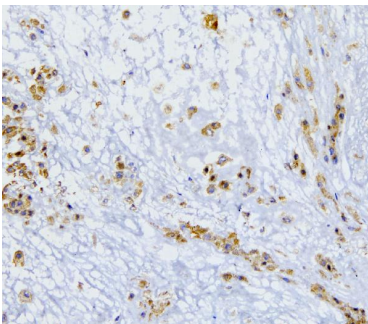


Figure 6. IHC analysis of SQSTM1 using anti-SQSTM1 antibody (PB9444).

SQSTM1 was detected in frozen section of human placenta tissue. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SQSTM1 Antibody (PB9444) 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.

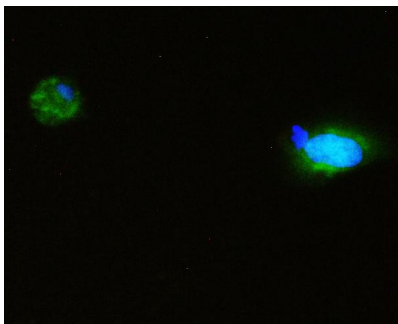


Figure 7. IF analysis of SQSTM1 using anti-SQSTM1 antibody (PB9444).

SQSTM1 was detected in immunocytochemical section of A431 cell. 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 (PB9444) 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.

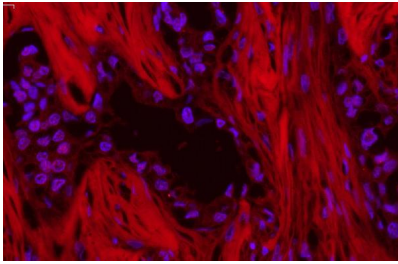


Figure 8. IF analysis of SQSTM1/p62 using anti-SQSTM1/p62 antibody (PB9444)

SQSTM1/p62 was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-SQSTM1/p62 Antibody (PB9444) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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.

13 Publications Citing This Product

1. PubMed ID: 10.3390/ijms19123948, Oleuropein Induces AMPK-Dependent Autophagy in NAFLD Mice, Regardless of the Gender
2. PubMed ID: -, Zhang Tao,Xiaoqing Zhou,Yan Zhang,Wenfeng Pu,Yi Yang,Fuxia Wei,Qian Zhou,Lin Zhang,Zhonghan Du,Ji Wu,"Xi Lei San Attenuates Dextran Sulfate Sodium-Induced Colitis in Rats and TNF-alpha-Stimulated Colitis in CACO2 Cells: Involvement of the NLRP3 Inflammasome and Autophagy",Mediators of Inflammation,vol. 2021, Article ID 1610251,12 pages,2021.<https://doi.org/10.1155/2021/1610251>
3. PubMed ID: -, Liu, J.,Qin, X.,Ma, W.,Jia, S.,Zhang, X.,Yang, X. ... Jin, F. (2021). Corilagin induces apoptosis and autophagy in NRF2^Δaddicted U251 glioma cell line. Molecular Medicine Reports,23,320. <https://doi.org/10.3892/mmr.2021.11959>

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