SQSTM1/p62 (PT0051R) PT™ Rabbit mAb

CatalogNo: YM8025 Recombinant KD/KO Validated

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,IP,ELISA

MW
- 48kD (Calculated)

62kD (Observed)

Isotype
- IgG, Kappa

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Recommended Dilution Ratios

IHC 1:200-1000
WB 1:500-5000
IF 1:200-1000
ELISA 1:5000-20000
IP 1:50-200

Basic Information

Clonality	Monoclonal
Clone Number	PT0051R

Immunogen Information

Immunogen	The specific immunogen used to produce this antibody is proprietary information.
Specificity	Endogenous

Target Information

Gene name SQSTM1 ORCA OSIL

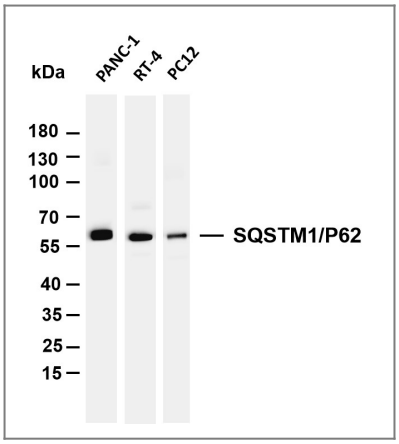
Protein Name SQSTM

Organism	Gene ID	UniProt ID
Human	8878;	Q13501;
Mouse	18412;	Q64337;
Rat	113894;	O08623;

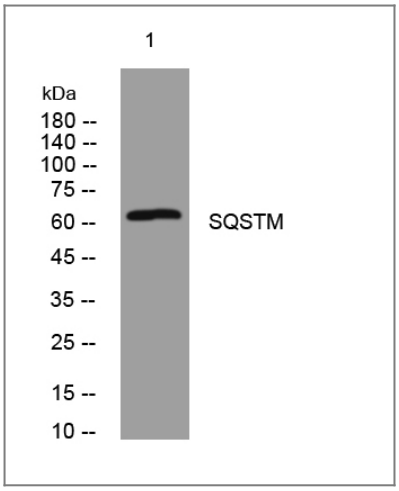
Cellular Localization Cytoplasm , Nuclear

Function Disease:Defects in SQSTM1 are a cause of sporadic and familial Paget disease of bone (PDB) [MIM:602080]. PDB is a metabolic bone disease affecting the axial skeleton and characterized by focal areas of increased and disorganized bone turn-over due to activated osteoclasts. Manifestations of the disease include bone pain , deformity , pathological fractures , deafness , neurological complications and increased risk of osteosarcoma. PDB is a chronic disease affecting 2 to 3% of the population above the age of 40 years. ,Domain:The OPR domain mediates homooligomerization and interactions with PRKCZ , PRKCI , MAP2K5 and NBR1. ,Domain:The UBA domain binds specifically 'Lys-63'-linked polyubiquitin chains of polyubiquitinated substrates. Mediates the interaction with TRIM55. ,Domain:The ZZ-type zinc finger mediates the interaction with RIPK1. ,Function:Adapter protein which binds ubiquitin and may regulate the activation of NFKB1 by TNF-alpha , nerve growth factor (NGF) and interleukin-1. May play a role in titin/TTN downstream signaling in muscle cells. May regulate signaling cascades through ubiquitination. May be involved in cell differentiation , apoptosis , immune response and regulation of K (+) channels. ,induction:By proteasomal inhibitor PSI and prostaglandin J2 (PGJ2) (at protein level) . By Phorbol 12-myristate 13-acetate (PMA) . ,PTM:Phosphorylated. May be phosphorylated by PRKCZ (By similarity) . Phosphorylated in vitro by TTN. ,similarity:Contains 1 OPR domain. ,similarity:Contains 1 UBA domain. ,similarity:Contains 1 ZZ-type zinc finger. ,subcellular location:Sarcomere (By similarity) . In cardiac muscles localizes to the sarcomeric band (By similarity) . Localizes to late endosomes. May also localize to the nucleus. Accumulates in neurofibrillary tangles and in Lewy bodies of neurons from individuals with Alzheimer and Parkinson disease respectively. Enriched in Rosenthal fibers of pilocytic astrocytoma. In liver cells , accumulates in Mallory bodies associated with alcoholic hepatitis , Wilson disease , indian childhood cirrhosis and in hyaline bodies associated with hepatocellular carcinoma. ,subunit:Homooligomer or heterooligomer; may form homotypic arrays. Interacts directly with PRKCI and PRKCZ (Probable) . Forms ternary complexes with PRKCZ and KCNAB2 or PRKCZ and GABBR3. Also interacts with KCNAB1 , GABRR1 , GABRR2 and GABRR3. Forms an NGF-induced complex with IKBKB , PRKCI and TRAF6 (By similarity) . Interacts with EBI3 , LCK , RASA1 , PRKCZ , PRKCI , NR2F2 , NTRK1 , NTRK2 , NTRK3 , NBR1 , MAP2K5 , TRIM55 and MAPKAPK5. Interacts with the proteasome subunits PSMD4 and PSMC2. Interacts with K63-polyubiquitinated MAPT/TAU. Interacts with IKBKB through PRKCZ and PRKCI. Interacts with NGFR through TRAF6 and bridges that complex to NTRK1. Forms a complex with MAP2K5 and PRKCZ or PRKCI. Component of a ternary complex with PAWR and PRKCZ. Upon TNF-alpha stimulation , interacts with RIPK1 problably bridging IKBKB to the TNF-R1 complex composed of TNF-R1/TNFRSF1A , TRADD and RIPK1. Forms a complex with JUB/Ajuba , PRKCZ and TRAF6. ,tissue specificity:Ubiquitously expressed. ,

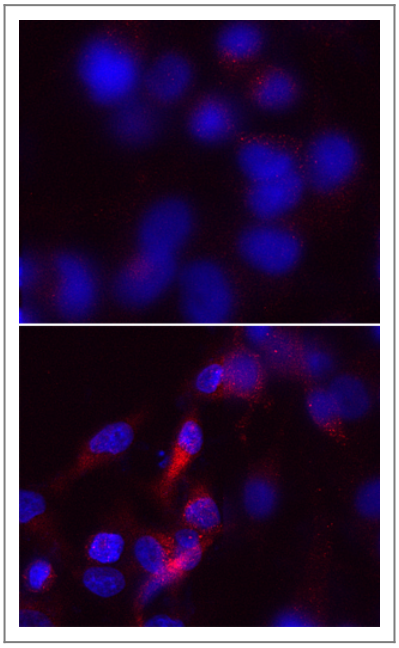
Validation Data



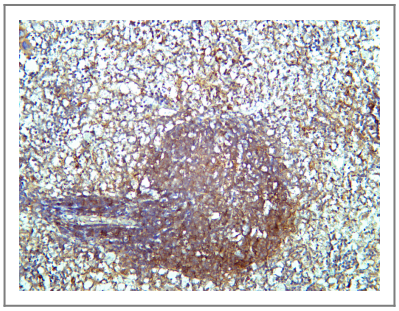
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-SQATM1/P62 antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: PANC-1 Lane 2: RT-4 Lane 3: PC12 Predicted band size: 48kDa Observed band size: 62kDa



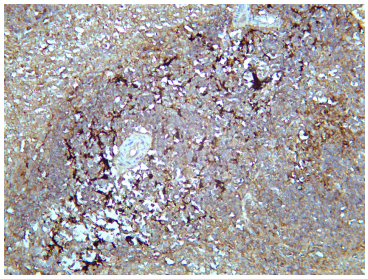
Western blot analysis of lysates from AD293 cells, primary antibody was diluted at 1:1000, 4℃ over night



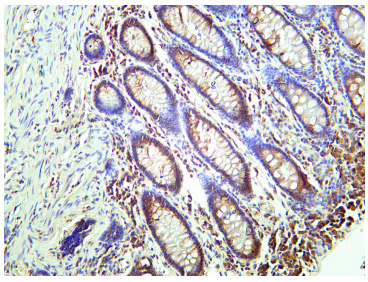
Immunofluorescence analysis of Hela cells treated or un-treated with UV 30MIN. 1,primary antibody (red) was diluted at 1:200 (4℃ overnight). 2, AFlour 594 labled Secondary antibody was diluted at 1:300 (room temperature, 50min).



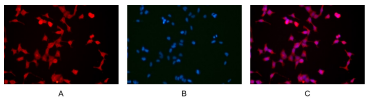
Mouse spleen tissue was stained with Anti-SQSTM1/p62 rabbit Antibody



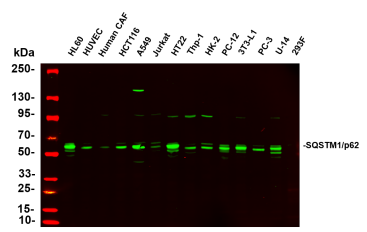
Rat spleen tissue was stained with Anti-SQSTM1/p62 rabbit Antibody



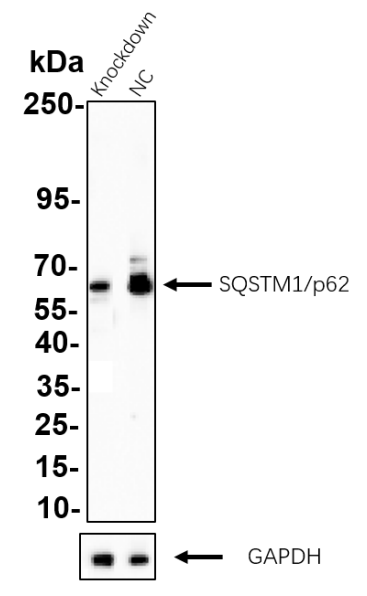
Human colon carcinoma tissue was stained with Anti-SQSTM1/p62 rabbit Antibody



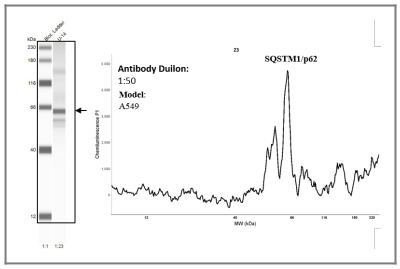
Immunofluorescence analysis of HEK293. Picture A: SQSTM1/p62 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4℃ over night with a 1:2500 dilution . The Dilight 800-conjugated Goat anti-Rabbit antibody (Cat:RS23920) was used to detect the antibody. Lane1: HL60 - Human promyelocytic leukemia cell Lane2: HUVEC - Human umbilical vein endothelial cell Lane3: Human CAF - Human cancer-associated fibroblast Lane4: HCT116 - Human colorectal carcinoma Lane5: A549 - Human lung carcinoma Lane6: Jurkat - Human T lymphocyte leukemia Lane7: HT22 - Mouse hippocampal neuronal Lane8: Thp-1 - Human monocytic leukemia Lane9: HK-2 - Human proximal tubular epithelial Lane10: PC-12 - Rat adrenal pheochromocytoma Lane11: 3T3-L1 - Mouse embryonic fibroblast cells Lane12: PC-3 - Human prostate adenocarcinoma Lane13: U-14 - Mouse cervical carcinoma Lane14: 293F - HEK293 derivative, adapted for suspension culture Predicted band size: 48kDa Observed band size: 62kDa



Western blot analysis of lysates from RT-4 WT and knockdown cell. Cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with SQSTM1/p62 (PT0049R) rabbit mAb. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody.



Simple Western analysis of lysates using primary Rabbit mAb. The virtual lane view (left) shows a single target band (as indicated) at 1:50 dilutions of primary antibody. The corresponding electropherogram view (right) plots chemiluminescence by molecular weight along the capillary at 1:50 of primary antibody. This experiment was performed under reducing conditions on the Jess Simple Westerninstrument from ProteinSimple, a BioTechne brand, using the 12-230 kDa separation module.

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Please scan the QR code to access additional product information:
SQSTM1/p62 (PT0051R) PT™ Rabbit mAb

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