

Rabbit SQSTM1/p62 Polyclonal Antibody | anti-SQSTM1/p62 antibody

Phospho-SQSTM1/p62 (Ser28) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329962	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (83%), Bovine (83%), Rabbit (83%)	ELISA, Western Blot

PRODUCT SYNONYMS

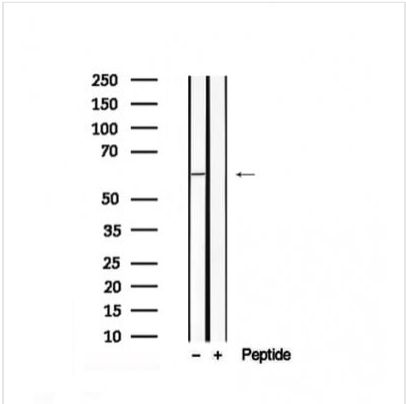
SQSTM1/p62; Polyclonal Antibody; Phospho-SQSTM1/p62 (Ser28) Antibody; A170; DMRV; EBI 3 associated protein of 60kDa; EBI 3 associated protein p60; EBI3 associated protein of 60kDa; EBI3 associated protein p60; EBI3-associated protein of 60kDa; EBIAP; FTDALS3; MGC127197; ORCA; OSF-6; Osi; OSIL; Oxidative stress induced like; p60; p62; p62B; Paget disease of bone 3; PDB 3; PDB3; Phosphotyrosine independent ligand for the Lck SH2 domain of 62kDa; Phosphotyrosine independent ligand for the Lck SH2 domain p62; Phosphotyrosine-independent ligand for the Lck SH2 domain of 62kDa; PKC-zeta-interacting protein; Protein kinase C-zeta-interacting protein; Sequestosome 1; Sequestosome-1; SQSTM 1; SQSTM_HUMAN; Sqstm1; STAP; STONE14; Ubiquitin binding protein p62; Ubiquitin-binding protein p62; ZIP 3; ZIP; ZIP3; anti-SQSTM1/p62 antibody

PRODUCT SPECIFICATIONS

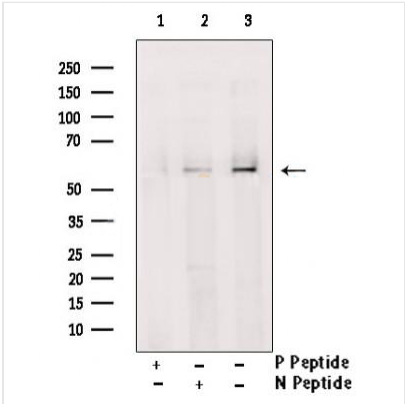
Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (83%), Bovine (83%), Rabbit (83%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-SQSTM1/p62 (Ser28) Antibody detects endogenous levels of SQSTM1/p62 only Phospho-SQSTM1/p62 (Ser28) Antibody. Tissue Specificity: Ubiquitously expressed.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-SQSTM1/p62 antibody	ELISA (Peptide ELISA), WB (Western Blot)
Immunogen	A synthesized peptide derived from human SQSTM1/p62 around the phosphorylation site of Ser28.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated. May be phosphorylated by PRKCZ (By similarity). Phosphorylated in vitro by TTN. Phosphorylation at Ser-403 by ULK1 is stimulated by SESN2. Phosphorylated at Ser-403 by TBK1, leading to promote relocalization of 'Lys-63'-linked ubiquitinated STING1 to autophagosomes. Phosphorylation at Ser-349 by MTOR promotes interaction with KEAP1 and inactivation of the BCR (KEAP1) complex, promoting NFE2L2/NRF2 nuclear accumulation and expression of phase II detoxifying enzymes (By similarity). Ubiquitinated by RNF26: ubiquitinated SQSTM1 attracts specific vesicle-associated adapters, forming a molecular bridge that restrains cognate vesicles in the perinuclear region and organizes the endosomal pathway for efficient cargo transport. Deubiquitination by USP15 releases target vesicles for fast transport into the cell periphery. Ubiquitinated by the BCR (KEAP1) complex at Lys-420, increasing SQSTM1 sequestering activity and promoting its degradation. Ubiquitinated via 'Lys-29' and 'Lys-33'-linked polyubiquitination leading to xenophagic targeting of bacteria and inhibition of their replication.

Subunit Structure	Homooligomer or heterooligomer; may form homotypic arrays. Dimerization interferes with ubiquitin binding. 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, TRIM13, 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 probably bridging IKBKB to the TNF-R1 complex composed of TNF-R1/TNFRSF1A, TRADD and RIPK1. Forms a complex with JUB/Ajuba, PRKCZ and TRAF6. Interacts with TRAF6 and CYLD. Identified in a complex with TRAF6 and CYLD (By similarity). Identified in a heterotrimeric complex with ubiquitin and ZFAND5, where ZFAND5 and SQSTM1 both interact with the same ubiquitin molecule. Directly interacts with MAP1LC3A and MAP1LC3B, as well as with other MAP1 LC3 family members, including GABARAP, GABARAPL1 and GABARAPL2; these interactions are necessary for the recruitment MAP1 LC3 family members to inclusion bodies containing polyubiquitinated protein aggregates and for their degradation by autophagy. Interacts with FHOD3. Interacts with TRIM5. Interacts with SESN1. Interacts with SESN2. Interacts with ULK1. Interacts with UBD. Interacts with WDR81; the interaction is direct and regulates the interaction of SQSTM1 with ubiquitinated proteins. Interacts with WDFY3; this interaction is required to recruit WDFY3 to cytoplasmic bodies and to PML bodies. Interacts with TRIM23. Interacts with LRRC25. Interacts with TRIM50. Interacts with TRIM16. Interacts with STING1; leading to relocalization of STING1 to autophagosomes. Interacts (when phosphorylated at Ser-349) with KEAP1; the interaction is direct and inactivates the BCR (KEAP1) complex by sequestering KEAP1 in inclusion bodies, promoting its degradation.
Similarity	The UBA domain binds specifically 'Lys-63'-linked polyubiquitin chains of polyubiquitinated substrates. Mediates the interaction with TRIM55. Both the UBA and PB1 domains are necessary and sufficient for the localization into the ubiquitin-containing inclusion bodies. The PB1 domain mediates homooligomerization and interactions with FHOD3, MAP2K5, NBR1, PRKCI, PRKCZ and WDR81. Both the PB1 and UBA domains are necessary and sufficient for the localization into the ubiquitin-containing inclusion bodies. The ZZ-type zinc finger mediates the interaction with RIPK1. The LIR (LC3-interacting region) motif mediates the interaction with ATG8 family proteins.
Subcellular Location	Cytoplasm>Cytosol. Late endosome. Lysosome. Cytoplasmic vesicle>Autophagosome. Nucleus. Endoplasmic reticulum. Nucleus>PML body. Cytoplasm>Myofibril>Sarcomere. Note: In cardiac muscle, localizes to the sarcomeric band (By similarity). Commonly found in inclusion bodies containing polyubiquitinated protein aggregates. In neurodegenerative diseases, detected in Lewy bodies in Parkinson disease, neurofibrillary tangles in Alzheimer disease, and HTT aggregates in Huntington disease. In protein aggregate diseases of the liver, found in large amounts in Mallory bodies of alcoholic and nonalcoholic steatohepatitis, hyaline bodies in hepatocellular carcinoma, and in SERPINA1 aggregates. Enriched in Rosenthal fibers of pilocytic astrocytoma. In the cytoplasm, observed in both membrane-free ubiquitin-containing protein aggregates (sequestosomes) and membrane-surrounded autophagosomes. Colocalizes with TRIM13 in the perinuclear endoplasmic reticulum. Co-localizes with TRIM5 in cytoplasmic bodies. When nuclear export is blocked by treatment with leptomycin B, accumulates in PML bodies.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of extracts from HeLa, using Phospho-P62/SQSTM1(S28) Antibody.



WB (Western Blot)
Western blot analysis of extracts from HeLa cells, using Phospho-P62/SQSTM1(Ser28) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-SQSTM1/p62 antibody	Autophagy receptor required for selective macroautophagy (aggrephagy). Functions as a bridge between polyubiquitinated cargo and autophagosomes. Interacts directly with both the cargo to become degraded and an autophagy modifier of the MAP1 LC3 family. Along with WDFY3, involved in the formation and autophagic degradation of cytoplasmic ubiquitin-containing inclusions (p62 bodies, ALIS/aggresome-like induced structures). Along with WDFY3, required to recruit ubiquitinated proteins to PML bodies in the nucleus. 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. Adapter that mediates the interaction between TRAF6 and CYLD (By similarity). May be involved in cell differentiation, apoptosis, immune response and regulation of K (+) channels. Involved in endosome organization by retaining vesicles in the perinuclear cloud: following ubiquitination by RNF26, attracts specific vesicle-associated adapters, forming a molecular bridge that restrains cognate vesicles in the perinuclear region and organizes the endosomal pathway for efficient cargo transport. Promotes relocalization of 'Lys-63'-linked ubiquitinated STING1 to autophagosomes. Acts as an activator of the NFE2L2/NRF2 pathway via interaction with KEAP1: interaction inactivates the BCR (KEAP1) complex, promoting nuclear accumulation of NFE2L2/NRF2 and subsequent expression of cytoprotective genes. 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. Adapter that mediates the interaction between TRAF6 and CYLD (By similarity). May be involved in cell differentiation, apoptosis, immune response and regulation of K (+) channels.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	74735628
NCBI GeneID	8878
UniProt Accession #	Q13501; Q13446; Q9BUV7; Q9BVS6; Q9UEU1; A6NFN7; B2R661; B3KUW5
Molecular Weight	440
NCBI Official Full Name	Sequestosome-1
NCBI Official Synonym Full Names	sequestosome 1
NCBI Official Symbol	SQSTM1
NCBI Official Synonym Symbols	p60; p62; A170; OSIL; PDB3; ZIP3; p62B
NCBI Protein Information	sequestosome-1; EBIAP; EBI3-associated protein p60; oxidative stress induced like; ubiquitin-binding protein p62; EBI3-associated protein of 60 kDa; phosphotyrosine independent ligand for the Lck SH2 domain p62; phosphotyrosine-independent ligand for the
UniProt Protein Name	Sequestosome-1
UniProt Gene Name	SQSTM1
UniProt Synonym Gene Names	ORCA; OSIL; EBIAP; p60
UniProt Entry Name	SQSTM_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/sqstm1-p62-antibody-peptide-elisa-western-blot-elisa/329962>