ARG52385
anti-SQSTM1 / p62 phospho (Thr269 / Ser272) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes SQSTM1 / p62 phospho (Thr269 / Ser272)
Tested Reactivity	Hu
Predict Reactivity	NHuPrm
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	SQSTM1 / p62
Species	Human
Immunogen	KLH-conjugated synthetic phospho-peptide around Thr269/Ser272 of Human SQSTM1 / p62.
Conjugation	Un-conjugated
Alternate Names	FTDALS3; p60; p62; EBI3-associated protein of 60 kDa; p62B; Sequestosome-1; Ubiquitin-binding protein p62; PDB3; OSIL; Phosphotyrosine-independent ligand for the Lck SH2 domain of 62 kDa; EBIAP; A170; ZIP3

Application Instructions

Application table

Application	Dilution
WB	1:1000

Application Note: Specific for the ~62k p62 protein phosphorylated at Thr269 and Ser272.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

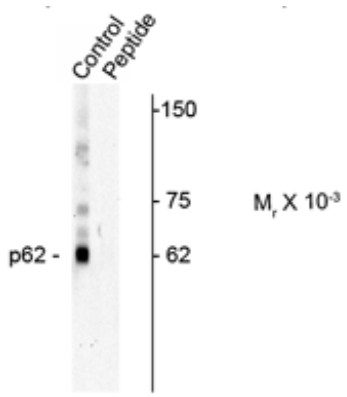
Properties

Form	Liquid
Purification	Affinity Purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 8878 Human Swiss-port # Q13501 Human
Gene Symbol	SQSTM1
Gene Full Name	sequestosome 1
Background	SQSTM1 / p62 is a multifunctional protein that binds ubiquitin and regulates activation of the nuclear factor kappa-B (NF-kB) signaling pathway. The protein functions as a scaffolding/adaptor protein in concert with TNF receptor-associated factor 6 to mediate activation of NF-kB in response to upstream signals. Alternatively spliced transcript variants encoding either the same or different isoforms have been identified for this gene. Mutations in this gene result in sporadic and familial Paget disease of bone. [provided by RefSeq, Mar 2009]
Function	SQSTM1 / p62: 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 (PubMed:16286508, PubMed:20168092, PubMed:24128730, PubMed:28404643, PubMed:22622177). 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 (PubMed:24128730, PubMed:20168092). 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. 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 (PubMed:27368102). Promotes relocalization of 'Lys-63'-linked ubiquitinated TMEM173/STING to autophagosomes (PubMed:29496741). 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 (PubMed:20452972, PubMed:28380357). [UniProt]
Highlight	Related products: SQSTM1 antibodies; SQSTM1 Duos / Panels; Anti-Rabbit IgG secondary antibodies; Related news: Keap1-Nrf2-ARE antibody panel is launched Therapeutic strategies against PDAC
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Cell Death antibody; Gene Regulation antibody; Metabolism antibody; Signaling Transduction antibody; Autophagy Study antibody
Calculated Mw	48 kDa
PTM	Phosphorylated. May be phosphorylated by PRKCZ (By similarity). Phosphorylated in vitro by TTN. Phosphorylation at Ser-403 by ULK1 is stimulated by SESN2 (PubMed:25040165). 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 (PubMed:27368102). Deubiquitination by USP15 releases target vesicles for fast transport into the cell periphery (PubMed:27368102).

Images



ARG52385 anti-SQSTM1 / p62 phospho (Thr269 / Ser272) antibody WB image

Western blot: Jurkat cell lysate showing specific immunolabeling of the ~62 kDa p62 phosphorylated at Thr269/Ser272 (Control) stained with ARG52385 anti-SQSTM1 / p62 phospho (Thr269 / Ser272) antibody.

Phosphospecificity is shown in the second lane where immunolabeling is blocked by preadsorption of the phospho-peptide used as antigen (peptide).