

### **SQSTM1** Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8447b

### **Specification**

#### **SQSTM1** Antibody - Product Information

Application
Primary Accession
Reactivity
Host
Clonality
Isotype
WB,E
013501
Human
Mouse
Monoclonal
IgG1,k

### **SQSTM1** Antibody - Additional Information

#### **Gene ID 8878**

#### **Other Names**

Sequestosome-1, EBI3-associated protein of 60 kDa, EBIAP, p60, Phosphotyrosine-independent ligand for the Lck SH2 domain of 62 kDa, Ubiquitin-binding protein p62, SQSTM1, ORCA, OSIL

# **Target/Specificity**

This SQSTM1 antibody is generated from mice immunized with a recombinant protein.

## **Dilution**

WB~~1:2000

### **Format**

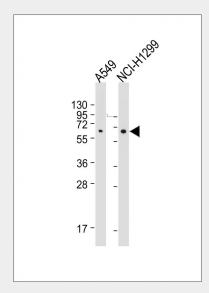
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

## Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### **Precautions**

SQSTM1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



All lanes: Anti-SQSTM1 Antibody at 1:2000 dilution Lane 1: A549 whole cell lysate Lane 2: NCI-H1299 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 62 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

## **SQSTM1** Antibody - Background

Required both for the formation and autophagic degradation of polyubiquitin-containing bodies, called ALIS (aggresome-like induced structures). Links ALIS to the autophagic machinery via direct interaction with MAP1 LC3 family members. 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.





### **SQSTM1** Antibody - Protein Information

#### Name SQSTM1

Synonyms ORCA, OSIL

Function 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: <a href="http:// www.uniprot.org/citations/16286508" target=" blank">16286508</a>, PubMed:<a href="http://www.uniprot.org/ci tations/20168092" target=" blank">20168092</a>, PubMed:<a href="http://www.uniprot.org/ci tations/24128730" target=" blank">24128730</a>, PubMed:<a href="http://www.uniprot.org/ci tations/28404643" target=" blank">28404643</a>, PubMed:<a href="http://www.uniprot.org/ci tations/22622177" target=" blank">22622177</a>). 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:<a href="http://www.unip rot.org/citations/24128730" target=" blank">24128730</a>, PubMed:<a href="http://www.uniprot.org/ci tations/20168092" target=" blank">20168092</a>). 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

## **SQSTM1 Antibody - References**

Devergne O., et al.J. Virol. 70:1143-1153(1996). Joung I., et al. Proc. Natl. Acad. Sci. U.S.A. 93:5991-5995(1996). Ota T., et al. Nat. Genet. 36:40-45(2004). Schmutz J., et al. Nature 431:268-274(2004). Vadlamudi R.K., et al. FEBS Lett. 435:138-142(1998).



efficient cargo transport (PubMed:<a href=" http://www.uniprot.org/citations/27368102" target=" blank">27368102</a>). Promotes relocalization of 'Lys-63'-linked ubiquitinated STING1 to autophagosomes (PubMed:<a href="http://www.uniprot.org/c itations/29496741" target=" blank">29496741</a>). 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: <a href="htt" p://www.uniprot.org/citations/20452972" target="\_blank">20452972</a>, PubMed:<a href="http://www.uniprot.org/ci tations/28380357" target=" blank">28380357</a>).

#### **Cellular Location**

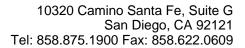
Cytoplasm, cytosol. Late endosome. Lysosome. Cytoplasmic vesicle, autophagosome. Nucleus. Endoplasmic reticulum. Nucleus, PML body. Cytoplasm, myofibril, sarcomere. Note=In cardiac muscle, localizes to the sarcomeric band (By similarity). Commonly found in inclusion bodies containing polyubiquitinated 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

# Tissue Location

# Ubiquitously expressed.

## **SQSTM1 Antibody - Protocols**

Provided below are standard protocols that you





may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture