

Product datasheet

Anti-SQSTM1 / p62 antibody ab91526

★★★★★ [6 Abreviews](#) [247 References](#) [14 Images](#)

Overview

Product name	Anti-SQSTM1 / p62 antibody
Description	Rabbit polyclonal to SQSTM1 / p62
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, WB, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human SQSTM1/ p62 (C terminal). Database link: Q13501
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at +4°C.
Storage buffer	pH: 7.2 Preservative: 0.02% Sodium azide Constituent: PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab91526 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★★ (1)	Use at an assay dependent concentration.
WB	★★★★★ (4)	Use a concentration of 0.5 - 2 µg/ml. Detects a band of approximately 65 kDa (predicted molecular weight: 47 kDa). Only mouse and human species are validated in WB. Rat is not a validated species.
IHC-P		Use a concentration of 2 - 5 µg/ml.

Target

Function

Adapter protein which binds ubiquitin and may regulate the activation of NFκB1 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.

Tissue specificity

Ubiquitously expressed.

Involvement in disease

Defects in SQSTM1 are a cause of 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.

Sequence similarities

Contains 1 OPR domain.
Contains 1 UBA domain.
Contains 1 ZZ-type zinc finger.

Domain

The UBA domain binds specifically 'Lys-63'-linked polyubiquitin chains of polyubiquitinated substrates. Mediates the interaction with TRIM55.
The OPR domain mediates homooligomerization and interactions with PRKCZ, PRKCI, MAP2K5 and NBR1.
The ZZ-type zinc finger mediates the interaction with RIPK1.

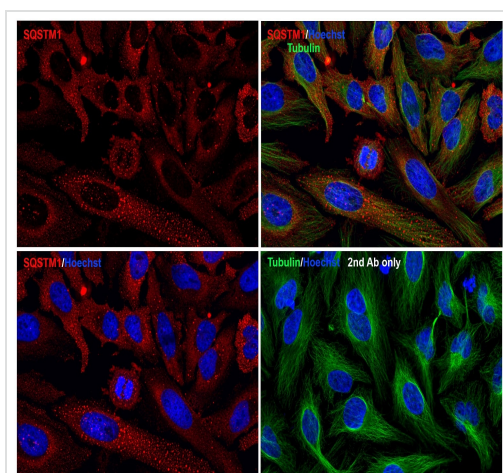
Post-translational modifications

Phosphorylated. May be phosphorylated by PRKCZ (By similarity). Phosphorylated in vitro by TTN.

Cellular localization

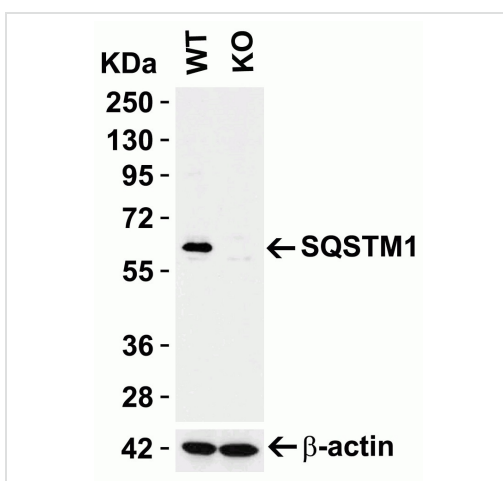
Cytoplasm. Late endosome. Nucleus. Sarcomere (By similarity). In cardiac muscles localizes to the sarcomeric band (By similarity). Localizes to late endosomes. May also localize to the nucleus. Accumulates in neurofibrillary tangles and in Lewy bodies of neurons from individuals with Alzheimer and Parkinson 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.

Images



Immunocytochemistry/ Immunofluorescence - Anti-SQSTM1 / p62 antibody (ab91526)

Immunofluorescent analysis of PFA-fixed HeLa cells labeling SQSTM1 with ab91526 at 20 $\mu\text{g/mL}$, followed by goat anti-rabbit IgG secondary antibody at 1/1000 dilution (red) and Hoechst staining (blue). Alpha tubulin was stained with anti-alpha tubulin antibody following by goat anti-mouse IgG secondary antibody (green).



Western blot - Anti-SQSTM1 / p62 antibody (ab91526)

All lanes : Anti-SQSTM1 / p62 antibody (ab91526) at 1 $\mu\text{g/ml}$

Lane 1 : HEK293T WT cell lysates

Lane 2 : SQSTM1 KO HEK293T cell lysates

Lysates/proteins at 10 μg per lane.

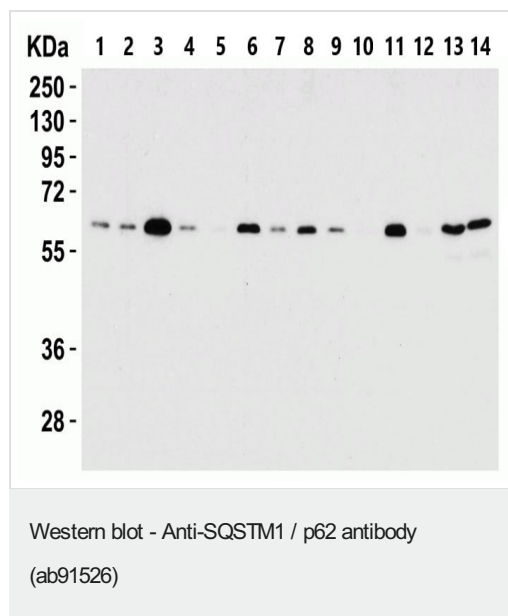
Secondary

All lanes : Goat Anti-Rabbit IgG HRP conjugate at 1/10000 dilution

Predicted band size: 47 kDa

1 h incubation at RT in 5% NFDN/TBST.

beta-actin was used as a loading control at 1 $\mu\text{g/mL}$.



All lanes : Anti-SQSTM1 / p62 antibody (ab91526) at 0.5 µg/ml

Lane 1 : HEK-293 (human epithelial cell line from embryonic kidney) cell lysate

Lane 2 : A431 (human epidermoid carcinoma cell line) cell lysate

Lane 3 : A549 (human lung carcinoma cell line) cell lysate

Lane 4 : CaCo-2 (human colorectal adenocarcinoma cell line) cell lysate

Lane 5 : Daudi (human Burkitt's lymphoma cell line) cell lysate

Lane 6 : HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate

Lane 7 : HepG2 (human liver hepatocellular carcinoma cell line) cell lysate

Lane 8 : K562 (human chronic myelogenous leukemia cell line from bone marrow) cell lysate

Lane 9 : MCF7 (human breast adenocarcinoma cell line) cell lysate

Lane 10 : Jurkat (human T cell leukemia cell line from peripheral blood) cell lysate

Lane 11 : SK-N-SH (human neuroblastoma cell line) cell lysate

Lane 12 : THP-1 (human monocytic leukemia cell line) cell lysate

Lane 13 : NIH/3T3 (mouse embryo fibroblast cell line) cell lysate

Lane 14 : L1210 (mouse lymphocytic leukemia cell line) cell lysate

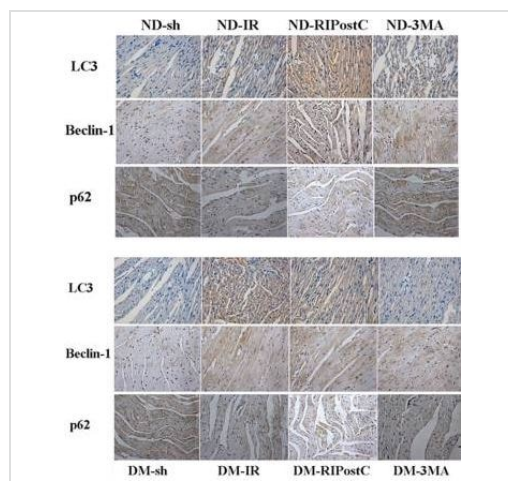
Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Goat anti-rabbit IgG (HRP) at 1/10000 dilution

Predicted band size: 47 kDa

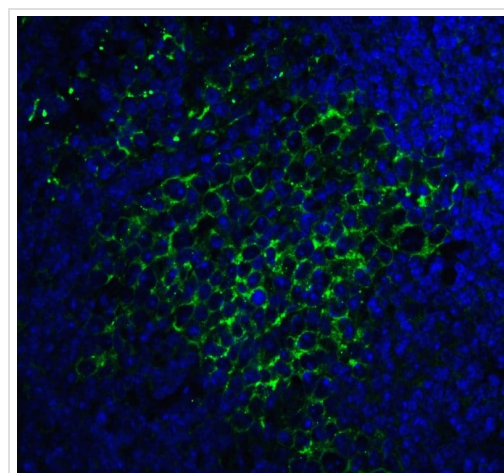
Diluting buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SQSTM1 / p62 antibody (ab91526)

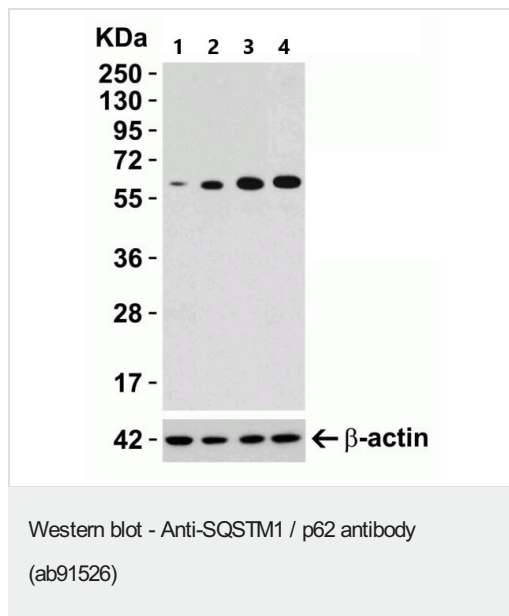
Han, Z. et al PLoS One. 2014 Jan 23;9(1):e86838. doi: 10.1371/journal.pone.0086838. eCollection 2014
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse heart tissue labelling SQSTM1 / p62 with ab91526. Heat mediated antigen retrieval was performed. The tissue sections were then blocked with 10% goat serum in PBS, and incubated with primary antibody overnight at 4°C. Sections were incubated with secondary antibody for 1 h at room temperature, incubated with avidin-biotin complex for 1 h at room temperature, rinsed with PBS and then treated with 0.5 mg/mL DAPI.



Immunofluorescent analysis of 4% paraformaldehyde fixed Mouse Spleen Tissue labeling SQSTM1 / p62 with ab91526 at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SQSTM1 / p62 antibody (ab91526)



All lanes : Anti-SQSTM1 / p62 antibody (ab91526) at 0.5 µg/ml

Lane 1 : RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cell lysate - untreated

Lane 2 : RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cell lysate treated with 0.3 µg/mL LPS for 3 hours

Lane 3 : RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cell lysate treated with 0.3 µg/mL LPS for 6 hours

Lane 4 : RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cell lysate treated with 0.3 µg/mL LPS for 24 hours

Lysates/proteins at 15 µg per lane.

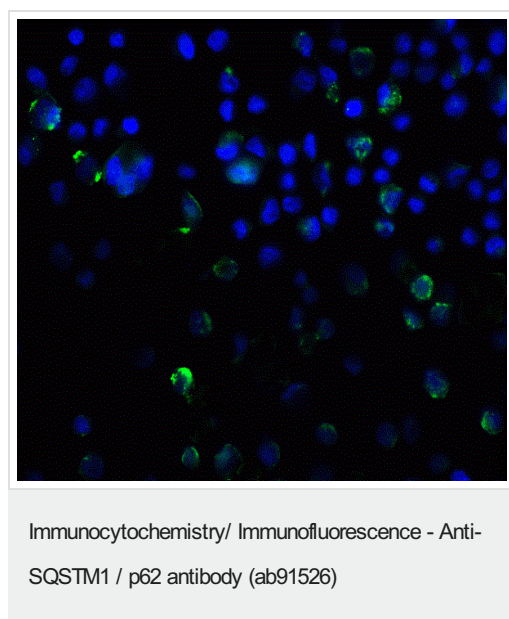
Secondary

All lanes : Goat anti-rabbit IgG (HRP) at 1/10000 dilution

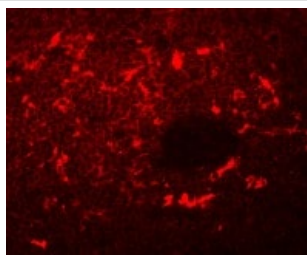
Predicted band size: 47 kDa

Diluting buffer: 5% NFDm/TBST.

Raw 264.7 cells were treated with LPS (0.3 µg/mL) for different time period (0-24 hrs). There was an increase in SQSTM1 protein expression overtime after LPS treatment.

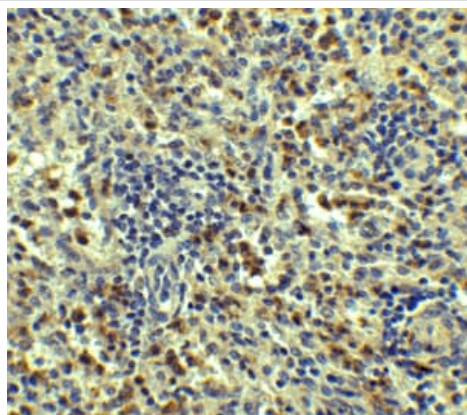


A431 (human epidermoid carcinoma cell line) cells stained for SQSTM1 / p62 (green) using ab91526 at 20 µg/ml in ICC/IF.



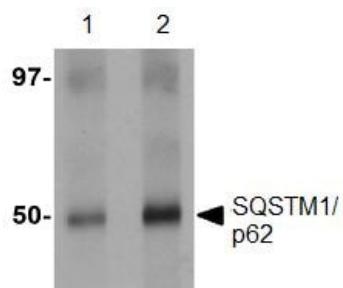
Immunocytochemistry/ Immunofluorescence - Anti-SQSTM1 / p62 antibody (ab91526)

Immunofluorescence of SQSTM1 / p62 in Rat Spleen cells using ab91526 at 20 ug/ml.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SQSTM1 / p62 antibody (ab91526)

Paraffin-embedded human spleen tissue stained for SQSTM1/p62 using ab91526 at 5 µg/ml in immunohistochemical analysis.



Western blot - Anti-SQSTM1 / p62 antibody (ab91526)

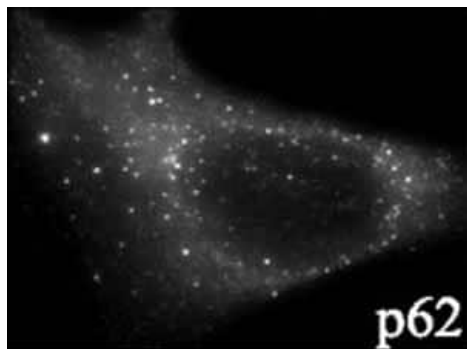
Lane 1 : Anti-SQSTM1 / p62 antibody (ab91526) at 1 µg/ml

Lane 2 : Anti-SQSTM1 / p62 antibody (ab91526) at 2 µg/ml

All lanes : Human spleen tissue lysate

Lysates/proteins at 15 µg per lane.

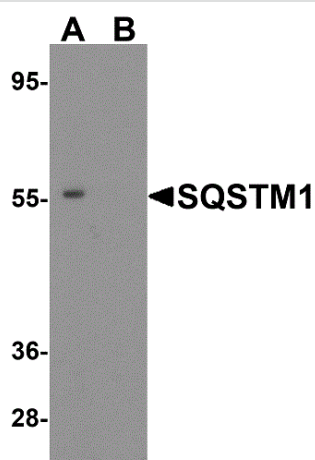
Predicted band size: 47 kDa



Immunocytochemistry/ Immunofluorescence - Anti-SQSTM1 / p62 antibody (ab91526)

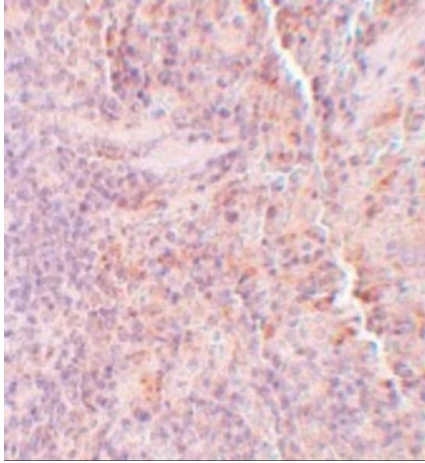
Image from Traver MK et al, J Biol Chem. 2011 Sep 2;286(35):30471-80. Epub 2011 Jul 12, Fig 5. DOI 10.1074/jbc.M111.251967 September 2, 2011 The Journal of Biological Chemistry, 286, 30471-30480.

ab91526 at a 1/500 dilution staining SQSTM1/ p62 in wild type murine embryonic fibroblasts by Immunocytochemistry/ Immunofluorescence.



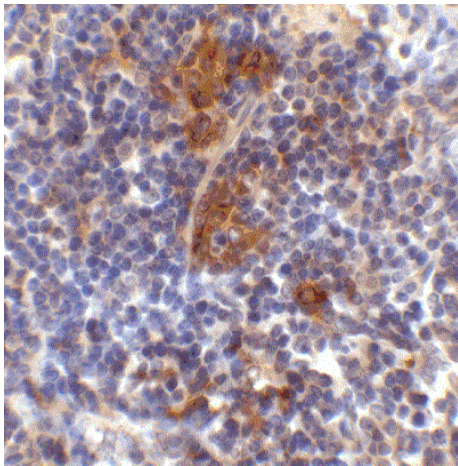
Western blot - Anti-SQSTM1 / p62 antibody (ab91526)

Western blot analysis of SQSTM1 expression in K562 cell lysate with ab91526 at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide.



Rat spleen tissue stained for SQSTM1 / p62 using ab91526 at 5 µg/ml in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SQSTM1 / p62 antibody (ab91526)



Rat spleen tissue stained for SQSTM1 / p62 using ab91526 at 2 µg/ml in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SQSTM1 / p62 antibody (ab91526)

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