

## Product datasheet

# Anti-SQSTM1 / p62 antibody [EPR4844] - Autophagosome Marker (Alexa Fluor® 555) ab203430

**KO VALIDATED** Recombinant RabMAb<sup>®</sup>

[1 References](#) [3 Images](#)

### Overview

<b>Product name</b>	Anti-SQSTM1 / p62 antibody [EPR4844] - Autophagosome Marker (Alexa Fluor® 555)
<b>Description</b>	Rabbit monoclonal [EPR4844] to SQSTM1 / p62 - Autophagosome Marker (Alexa Fluor® 555)
<b>Host species</b>	Rabbit
<b>Conjugation</b>	Alexa Fluor® 555. Ex: 555nm, Em: 565nm
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) corresponding to Human SQSTM1/ p62 aa 400 to the C-terminus. Database link: <a href="#">Q13501</a>
<b>Positive control</b>	ICC/IF: MCF7 cells, HeLa cells (untreated and chloroquine-treated), HAP1 cells (untreated and chloroquine-treated).
<b>General notes</b>	<p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMab<sup>®</sup> patents</a>.</p> <p>Alexa Fluor<sup>®</sup> is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor<sup>®</sup> dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor<sup>®</sup> dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor<sup>®</sup> dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: (i) in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or <a href="mailto:outlicensing@thermofisher.com">outlicensing@thermofisher.com</a>.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C. Store In the Dark.
<b>Storage buffer</b>	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: 30% Glycerol, 1% BSA, PBS
<b>Purity</b>	Affinity purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR4844
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab203430** 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		1/100 - 1/500. This product gave a positive signal in cells fixed with 4% formaldehyde (10 min) and 100% methanol (5 min).

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	Ubiquitously expressed.
<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Contains 1 OPR domain. Contains 1 UBA domain. Contains 1 ZZ-type zinc finger.
<b>Domain</b>	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.
<b>Post-translational</b>	Phosphorylated. May be phosphorylated by PRKCZ (By similarity). Phosphorylated in vitro by

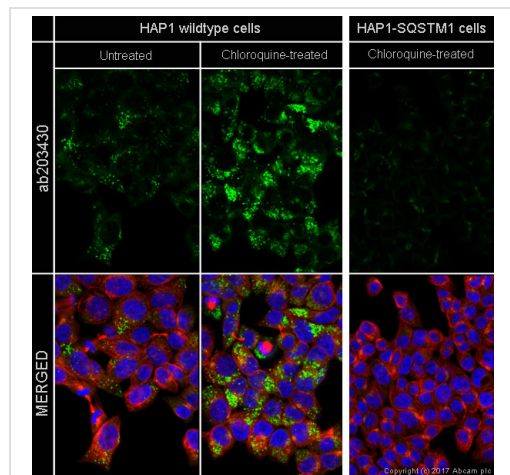
## modifications

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.

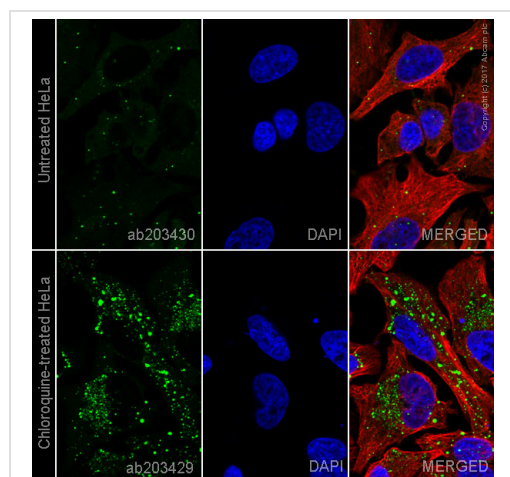
## Images



Immunocytochemistry/ Immunofluorescence - Anti-SQSTM1 / p62 antibody [EPR4844] - Autophagosome Marker (Alexa Fluor® 555) (ab203430)

ab203430 staining SQSTM1 in wild-type HAP1 cells, untreated and chloroquine-treated (50µM, 24 hours) and chloroquine-treated SQSTM1 knockout HAP1 cells. The cells were fixed with 4% formaldehyde (10min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab203430 at 1/500 dilution (shown in pseudocolor green) and ab195884, Rat monoclonal to alpha Tubulin (Alexa Fluor® 647), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

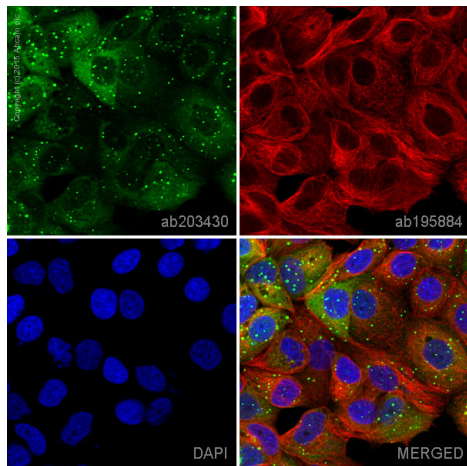
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunocytochemistry/ Immunofluorescence - Anti-SQSTM1 / p62 antibody [EPR4844] - Autophagosome Marker (Alexa Fluor® 555) (ab203430)

ab203430 staining SQSTM1/p62 in HeLa cells +/- Chloroquine (50µM, 24 hours). The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab203430 at 1/500 dilution (shown in pseudocolor green) and ab195884, Rat monoclonal to alpha Tubulin (Alexa Fluor® 647), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunocytochemistry/ Immunofluorescence - Anti-SQSTM1 / p62 antibody [EPR4844] - Autophagosome Marker (Alexa Fluor® 555) (ab203430)

ab203430 staining SQSTM1 / p62 in MCF7 cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab203430 at a 1/100 dilution (shown in green) and ab195884, Rat monoclonal to alpha Tubulin (Alexa Fluor® 647), at a 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in MCF7 cells fixed with 100% methanol (5 min).

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