


Product datasheet

HRP Anti-SQSTM1 / p62 antibody [EPR4844] αb194720

KO **VALIDATED** Recombinant RabMAb[®]

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

Overview

| | |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name | HRP Anti-SQSTM1 / p62 antibody [EPR4844] |
| Description | HRP Rabbit monoclonal [EPR4844] to SQSTM1 / p62 |
| Host species | Rabbit |
| Conjugation | HRP |
| Tested applications | Suitable for: WB |
| Species reactivity | Reacts with: Human Predicted to work with: Mouse, Rat  |
| Immunogen | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| Positive control | WB: MCF-7 and HeLa whole cell lysates. |
| General notes | <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> |

Properties

| | |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark. |
| Storage buffer | pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS |
| Purity | Protein A purified |
| Clonality | Monoclonal |
| Clone number | EPR4844 |

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab194720 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 |
|-------------|-----------|--------------------------------------------------------------------------------------|
| WB | | 1/1000. Detects a band of approximately 62 kDa (predicted molecular weight: 62 kDa). |

Target

Function

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.

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.

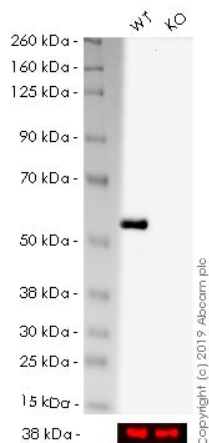
Post-translational modifications

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



Western blot - HRP Anti-SQSTM1 / p62 antibody [EPR4844] (ab194720)

All lanes : HRP Anti-SQSTM1 / p62 antibody [EPR4844] (ab194720) at 1/5000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate

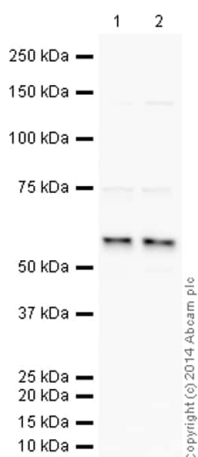
Lane 2 : SQSTM1 knockout HAP1 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 62 kDa

Exposure time: 12 minutes

ab194720 was shown to specifically react with SQSTM1 in wild-type HAP1 cells as signal was lost in SQSTM1 knockout cells. Wild-type and SQSTM1 knockout samples were subjected to SDS-PAGE. The membrane was blocked with 3% Milk. Ab194720 and **ab184095** (Mouse monoclonal [mAbcam 9484] to GAPDH - Loading Control (Alexa Fluor® 680) loading control) were incubated overnight at 4°C at 1/5000 dilution and 1/20000 dilution respectively. The loading control was imaged using the Licor Odyssey CLx prior to blots being developed with ECL technique.



Western blot - HRP Anti-SQSTM1 / p62 antibody [EPR4844] (ab194720)

All lanes : HRP Anti-SQSTM1 / p62 antibody [EPR4844] (ab194720) at 1/1000 dilution

Lane 1 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate

Lane 2 : HeLa whole cell lysate (**ab150035**)

Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 62 kDa

Observed band size: 62 kDa

Exposure time: 20 seconds

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% milk before being incubated with ab194720 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.

Why choose a recombinant antibody?

Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

HRP Anti-SQSTM1 / p62 antibody [EPR4844]
(ab194720)

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