

PRODUCT INFORMATION



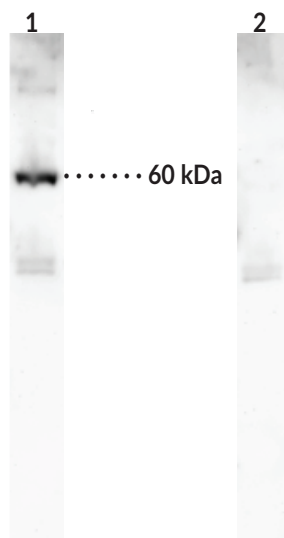
p62/SQSTM1 Polyclonal Antibody

Item No. 24693

Overview and Properties

Contents:	This vial contains 500 µl of peptide affinity-purified IgG.
Synonyms:	Sequestosome-1, Ubiquitin-binding Protein p62/SQSTM1
Immunogen:	A synthetic peptide from the C-terminal region of human p62/SQSTM1
Species Reactivity:	(+) Human; other species not tested
Uniprot No.:	Q13501
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	ELISA and Western blot (WB); The recommended starting dilution for ELISA and WB is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: A549 cell lysate (50 µg)

Lane 2: A549 cell lysate (50 µg) and 10 µg/ml immunizing peptide

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

p62, also known as sequestosome-1 (SQSTM1), is a 62 kDa protein that acts as a signaling hub and autophagy substrate and adaptor.^{1,2} It is a multi-domain protein that includes a Phox1 and Bem1p (PB1) domain, a zinc finger, a tumor necrosis factor receptor-associated factor 6 (TRAF6) binding domain, a ubiquitin-associated (UBA) domain, LC3- and Keap1-interacting regions, as well as two nuclear localization and one nuclear export sequence. p62/SQSTM1 is constitutively expressed and is primarily localized in the cytoplasm, however, it is also expressed in the nucleus, autophagosomes, lysosomes, and inclusion bodies containing polyubiquitinated protein aggregates. It is overexpressed in a variety of human cancer cells as well as in the chronic liver diseases alcoholic and non-alcoholic steatohepatitis (NASH). p62/SQSTM1 binds to ERK1, RIP1, TRAF6, Raptor, PKC, LC3, and Keap1 to activate mammalian target of rapamycin complex 1 (mTORC1), NF-κB, and nuclear factor erythroid 2-related factor 2 (NRF2) signaling in response to oxidative and endoplasmic reticulum (ER) stress. It functions as a cargo receptor in selective autophagy to shuttle aggregated and damaged proteins and organelles to autophagosomes for clearance. Mutations in the UBA domain of the *SQSTM1* gene are associated with Paget's diseases. Cayman's p62/SQSTM1 Polyclonal Antibody can be used for ELISA and WB applications. The antibody recognizes p62/SQSTM1 at ~60 kDa from human samples.

References

1. Taniguchi, K., Yamachika, S., He, F., *et al.* p62/SQSTM1-Dr. Jekyll and Mr. Hyde that prevents oxidative stress but promotes liver cancer. *FEBS Lett.* **590(15)**, 2375-2397 (2016).
2. Katsuragi, Y., Ichimura, Y., and Komatsu, M. p62/SQSTM1 functions as a signaling hub and an autophagy adaptor. *FEBS J.* **282(24)**, 4672-4678 (2015).

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