SANTA CRUZ BIOTECHNOLOGY, INC.

SQSTM1 (P-15): sc-10117

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The chronic focal skeletal disorder, Paget's disease of bone, affects 2-3% of the population over the age of 60 years. Paget's disease is characterized by increased bone resorption by osteoclasts, followed by abundant new bone formation that is of poor quality. The disease leads to several complications including bone pain and deformities, as well as fissures and fractures. Mutations in the ubiquitin-associated (UBA) domain of the Sequestosome 1 protein (SQSTM1), also designated p62 or ZIP, commonly cause Paget's disease since the UBA is necessary for aggregate sequestration and cell survival.

REFERENCES

1. Hocking, L.J., et al. 2002. Domain-specific mutations in sequestosome 1 (SQSTM1) cause familial and sporadic Paget's disease. Hum. Mol. Genet. 11: 2735-2739.
2. Ciani, B., et al. 2003. Structure of the ubiquitin-associated domain of p62 (SQSTM1) and implications for mutations that cause Paget's disease of bone. J. Biol. Chem. 278: 37409-37412.

CHROMOSOMAL LOCATION

Genetic locus: SQSTM1 (human) mapping to 5q35.3; Sqstm1 (mouse) mapping to 11 B1.3.

SOURCE

SQSTM1 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SQSTM1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10117 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SQSTM1 (P-15) is recommended for detection of SQSTM1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SQSTM1 (P-15) is also recommended for detection of sequestosome 1 in additional species, including bovine, porcine and avian.

Suitable for use as control antibody for SQSTM1 siRNA (h): sc-29679, SQSTM1 siRNA (m): sc-29828, SQSTM1 shRNA Plasmid (h): sc-29679-SH, SQSTM1 shRNA Plasmid (m): sc-29828-SH, SQSTM1 shRNA (h) Lentiviral Particles: sc-29679-V and SQSTM1 shRNA (m) Lentiviral Particles: sc-29828-V.

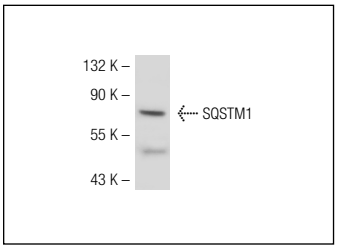
Molecular Weight of SQSTM1: 65 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232, HeLa whole cell lysate: sc-2200 or SK-LMS-1 cell lysate: sc-3813.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



SQSTM1 (P-15): sc-10117. Western blot analysis of SQSTM1 expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

1. Nakano, T., et al. 2004. Expression of ubiquitin-binding protein p62 in ubiquitin-immunoreactive intraneuronal inclusions in amyotrophic lateral sclerosis with dementia: analysis of five autopsy cases with broad clinicopathological spectrum. Acta Neuropathol. 107: 359-364.
2. Strnad, P., et al. 2008. "Toxic memory" via chaperone modification is a potential mechanism for rapid Mallory-Denk body reinduction. Hepatology 48: 931-942.
3. Rodríguez-Navarro, J.A., et al. 2008. Parkin deletion causes cerebral and systemic amyloidosis in human mutated τ over-expressing mice. Hum. Mol. Genet. 17: 3128-3143.
4. Kuusisto, E., et al. 2008. Use of p62/SQSTM1 antibodies for neuropathological diagnosis. Neuropathol. Appl. Neurobiol. 34: 169-180.
5. Perucho, J., et al. 2010. The effects of parkin suppression on the behaviour, amyloid processing, and cell survival in APP mutant transgenic mice. Exp. Neurol. 221: 54-67.
6. Perucho, J., et al. 2010. Anesthesia with isoflurane increases amyloid pathology in mice models of Alzheimer's disease. J. Alzheimers Dis. 19: 1245-1257.
7. Rodríguez-Navarro, J.A., et al. 2010. Trehalose ameliorates dopaminergic and τ pathology in parkin deleted/τ overexpressing mice through autophagy activation. Neurobiol. Dis. 39: 423-438.

RESEARCH USE

For research use only, not for use in diagnostic procedures.