

Product datasheet for **TA336949**

SQSTM1 Mouse Monoclonal Antibody [Clone ID: 5H7E2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	5H7E2
Applications:	FC, IHC, WB
Recommended Dilution:	WB: 1:500 - 1:2000, ELISA: 1:10000, FC: 1:200 - 1:400, IF: 1:100, IHC: 1:200 - 1:1000, IHC-P: 1:200 - 1:1000
Reactivity:	Human, Primate
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Partial recombinant human p62/SQSTM1 (between residues 100-400) expressed in E. coli [UniProt Q13501]
Formulation:	PBS, 0.03% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Ammonium sulfate precipitation
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	sequestosome 1
Database Link:	NP_003891 Entrez Gene 8878 Human Q13501



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Background:

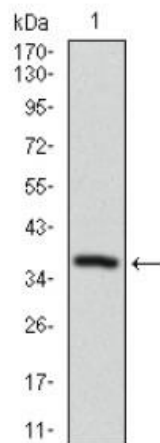
p62/SQSTM1 (sequestosome 1) is ubiquitously-expressed cytoplasmic/adaptor protein conserved in vertebrates and it can be induced by proteasomal inhibitor PSI, PGJ2/prostaglandin J2 as well as phorbol 12-myristate 13-acetate (PMA). SQSTM1 has the ability of ubiquitin binding as well as regulating NFκB1 activation by TNF-α, NGF (nerve growth factor) and interleukin-1. SQSTM1 acts as an adaptor that mediates the interaction between TRAF6 and CYLD, and SQSTM1-TRAF6 interaction leads to K63-linked polyubiquitination of TRAF6 followed by subsequent activation of NFκB pathway. SQSTM1 plays a role in TITIN/TTN downstream signaling in muscle cells and regulate signaling cascades through ubiquitination. SQSTM1 is essential both for formation and autophagic degradation of polyubiquitin-containing bodies which are known as aggresome-like induced structures (ALIS) and SQSTM1 connects ALIS to the autophagic machinery via direct interaction with MAP1 LC3 family members. Moreover, while autophagy modulates SQSTM1 protein levels, SQSTM1 suppresses autophagy via activation of mTORC1. SQSTM1 interacts with KEAP1, which is a cytoplasmic inhibitor of NRF2, a key transcription factor involved in cellular responses to oxidative stress. SQSTM1 functions as a signaling hub for various signal transduction pathways, apoptosis, cell differentiation, apoptosis, immune response, regulation of K⁺ channels and Nrf2 activation, and its dysregulation is associated with Paget disease of bone and tumorigenesis.

Synonyms:

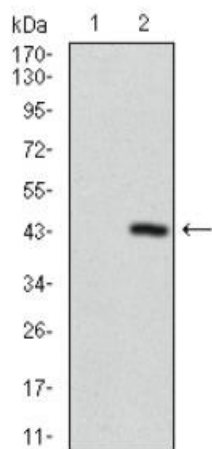
A170; OSIL; p60; p62; p62B; PDB3; ZIP3

Protein Families:

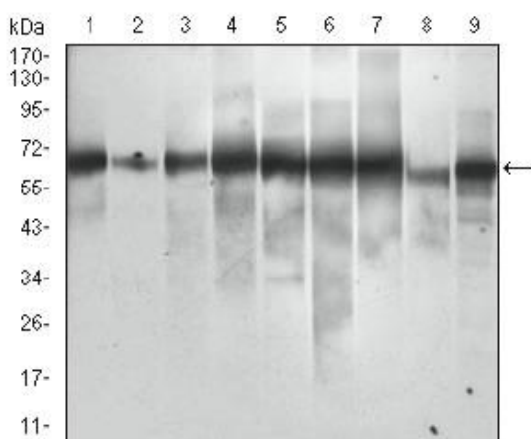
Druggable Genome, Transcription Factors

Product images:

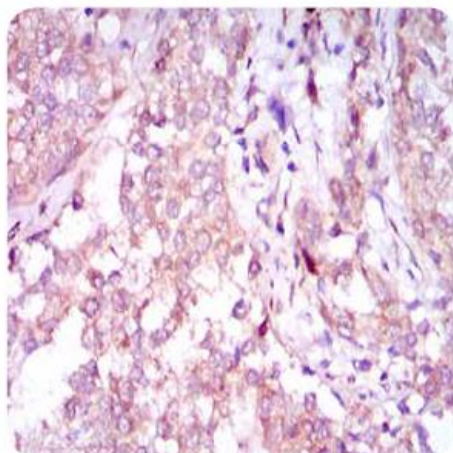
Western Blot: p62/SQSTM1 Antibody (5H7E2) TA336949 - Western blot analysis using p62/SQSTM1 mAb against human SQSTM1 recombinant protein. (Expected MW is 39.1 kDa)



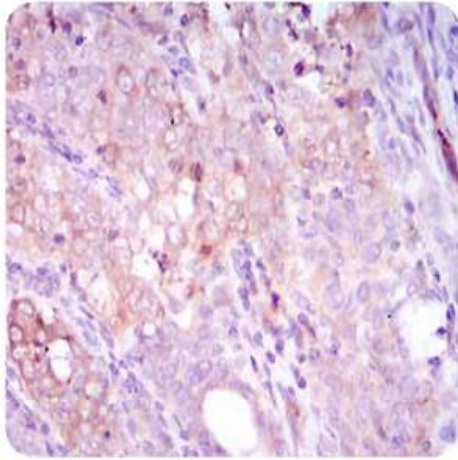
Western Blot: p62/SQSTM1 Antibody (5H7E2) TA336949 - Western blot analysis using p62/SQSTM1 mAb in (1) HEK293 and (2) SQSTM1 hlgGfc transfected HEK293 cell lysate.



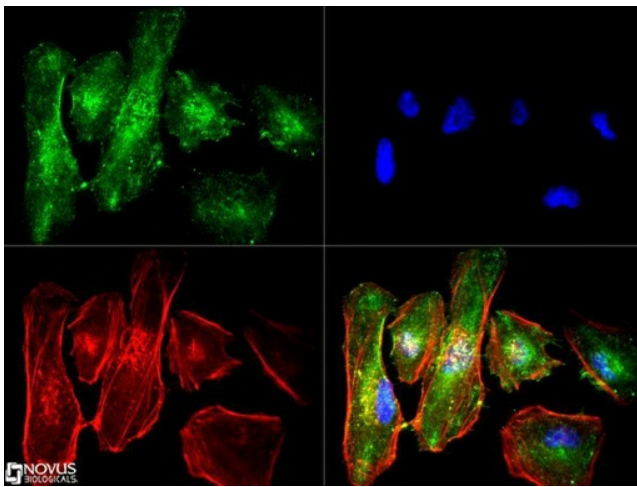
Western Blot: p62/SQSTM1 Antibody (5H7E2) TA336949 - Western blot analysis using p62/SQSTM1 mouse mAb in (1) Hela, (2) Jurkat, (3) THP-1, (4) HEK293, (5) A549, (6) MCF-7, (7) HepG2, (8) COS7 and (9) SK-BR-3 cell lysate.



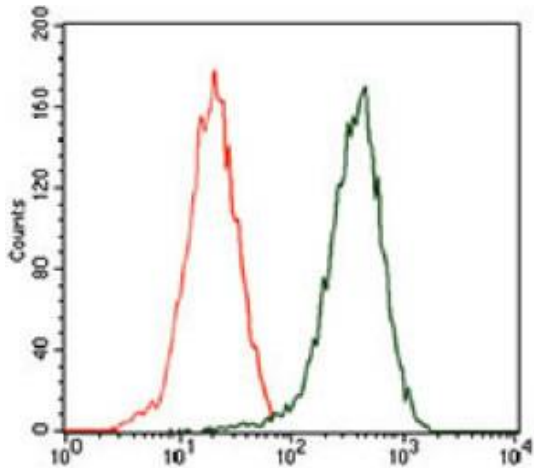
Immunohistochemistry: p62/SQSTM1 Antibody (5H7E2) TA336949 - IHC analysis of paraffin-embedded bladder cancer tissues using SQSTM1 mouse mAb with DAB staining.



Immunohistochemistry: p62/SQSTM1 Antibody (5H7E2) TA336949 - IHC analysis of paraffin-embedded human cervical cancer tissues using p62/SQSTM1 mouse mAb with DAB staining.



Immunofluorescence: p62/SQSTM1 Antibody (5H7E2) TA336949 - p62/SQSTM1 antibody was tested in HeLa cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).



Flow Cytometry: p62/SQSTM1 Antibody (5H7E2) TA336949 - Flow cytometry analysis of HEK293 cells using SQSTM1 mouse mAb (green) and negative control (red).