Anti-SQSTM1 / p62 Antibody [10-E10]

EM0704

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IF-Cell, IHC-P, FC
Molecular Wt:	Predicted band size: 62 kDa
Clone number:	10-E10

Description: Sequestosome 1 (SQSTM1, p62) is a ubiquitin binding protein involved in cell signaling, oxidative stress and autophagy. It was first identified as a protein that binds to the SH2 domain of p56Lck and independently found to interact with PKCζ. SQSTM1 was subsequently found to interact with ubiquitin, providing a scaffold for several signaling proteins and triggering degradation of proteins through the proteasome or lysosome. Interaction between SQSTM1 and TRAF6 leads to the K63-linked polyubiquitination of TRAF6 and subsequent activation of the NF-κB pathway. It may play a role in titin/TTN downstream signaling in muscle cells and regulate signaling cascades through ubiquitination. P62 may be involved in cell differentiation, apoptosis, immune response and regulation of K+ channels.

Immunogen: Synthetic peptide within Human Sequestosome-1 aa 42-91 / 440.

Positive control: Hela cell lysate, HepG2 cell lysate, HepG2, mouse spleen tissue, mouse prostate tissue, mouse pancreas tissue, Hela.

Subcellular location: Cytoplasm, Nucleus

Database links: SwissProt: Q13501 Human | Q64337 Mouse | O08623 Rat

Recommended Dilutions:

IF-Cell	1:200
IHC-P	1:200-1:1,000
FC	1:50

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

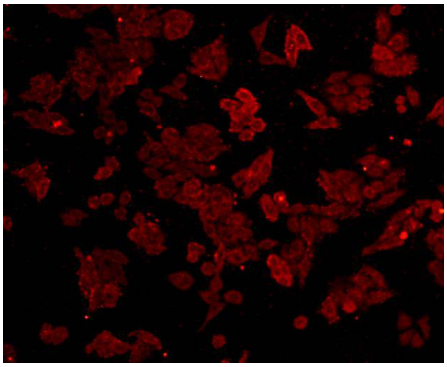

Fig1: ICC staining SQSTM1 in HepG2 cells (red). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

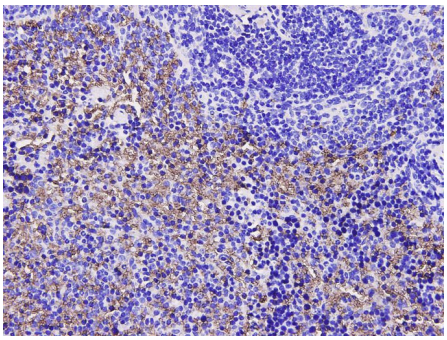

Fig2: Immunohistochemical analysis of paraffin-embedded mouse spleen tissue using anti- SQSTM1 antibody. Counter stained with hematoxylin.

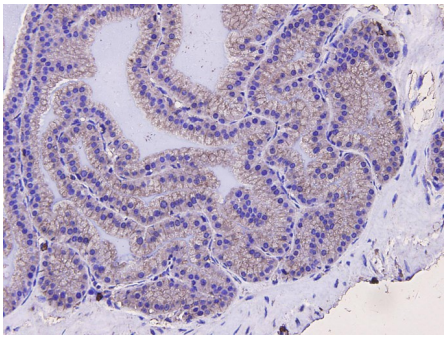

Fig3: Immunohistochemical analysis of paraffin-embedded mouse prostate tissue using anti- SQSTM1 antibody. Counter stained with hematoxylin.

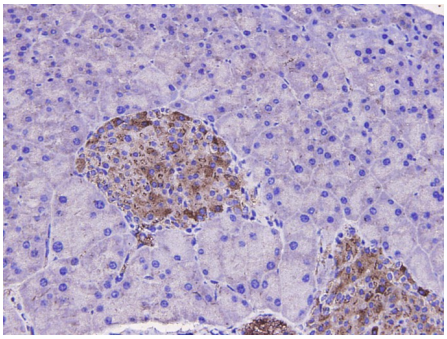

Fig4: Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue using anti-SQSTM1 antibody. Counter stained with hematoxylin.

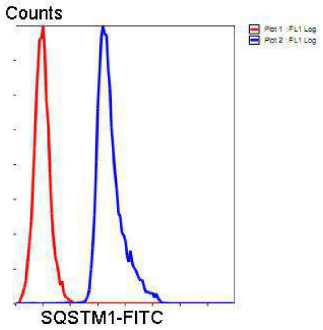

Fig5: Flow cytometric analysis of Hela cells with SQSTM1 antibody at 1/50 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Goat anti mouse IgG (FITC) was used as the secondary antibody.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. "The atypical PKC-interacting protein p62 channels NF-kappaB activation by the IL-1-TRAF6 pathway." Sanz L., Diaz-Meco M.T., Nakano H., Moscat J. EMBO J. 19:1576-1586(2000)
2. "Sequestosome 1/p62 is a polyubiquitin chain binding protein involved in ubiquitin proteasome degradation." Seibenhener M.L., Babu J.R., Geetha T., Wong H.C., Krishna N.R., Wooten M.W. Mol. Cell. Biol. 24:8055-8068(2004)
3. "Identification of SQSTM1 mutations in familial Paget's disease in Australian pedigrees." Good D.A., Busfield F., Fletcher B.H., Lovelock P.K., Duffy D.L., Kesting J.B., Andersen J., Shaw J.T.E.Bone 35:277-282(2004)