For Research Use Only

P62/SQSTM1 Monoclonal antibody

Catalog Number:66184-1-Ig Featured Product 164 Publications

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Basic Information

Catalog Number:
66184-1-Ig

Size:
150ul , Concentration: 2000 ug/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG2b

Immunogen Catalog Number:
AG13131

GenBank Accession Number:
BC017222

GeneID (NCBI):
8878

UNIPROT ID:
Q13501

Full Name:
sequestosome 1

Calculated MW:
48 kDa

Observed MW:
62 kDa

Purification Method:
Protein A purification

CloneNo.:
1H5C1

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:2000-1:8000
IF/ICC 1:200-1:800

Applications

Tested Applications:
WB, IHC, IF/ICC, IP, ELISA

Cited Applications:
WB, IHC, IF, IP, CoIP

Species Specificity:
human

Cited Species:
human, pig, monkey, bovine

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HeLa cells, U2OS cells, K-562 cells, HEK-293 cells, MCF-7 cells, HepG2 cells, Jurkat cells, L02 cells, Raji cells

IHC : human lung cancer tissue, human colon cancer tissue, human liver cancer tissue, human endometrial cancer tissue

IF/ICC : U2OS cells, Starvation treated HepG2 cells, Chloroquine treated U2OS cells, Chloroquine treated HepG2 cells

Background Information

Sequestosome 1 (SQSTM1/p62) is a multifunctional adaptor protein implicated in selective autophagy, cell signaling pathways, and tumorigenesis. p62 has been implicated in shuttling ubiquitinated and sometimes aggregated proteins for autophagic degradation. As a autophagy-specific substrate, p62 is degraded during the autophagic process, which makes intracellular level of p62 as a marker for autophagy flux. p62 is at the cross-roads of several signaling pathways including Ras/ Raf/ MAPK and NFκB and plays important role in cancer. p62 is a component of inclusion bodies/ protein aggregates found in human diseases, including Huntington's disease, Alzheimer's disease, Parkinson's disease in the brain, and nephropathic cystinosis in kidney (PMID: 22074114, 22860231, 22714671). The molecular weight of p62 is predicted as 48/ 38 kDa, while western blot analyses using this antibody demonstrate the major band around 60-62 kDa in various tissues.

Notable Publications

Author	Pubmed ID	Journal	Application
Yushan Mao	36175702	Med Oncol	WB
Wenbin Pei	34650433	Front Pharmacol	WB
Lei Zhao	34582963	Food Chem Toxicol	WB

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

***** 20ul sizes contain 0.1% BSA**

For technical support and original validation data for this product please contact:
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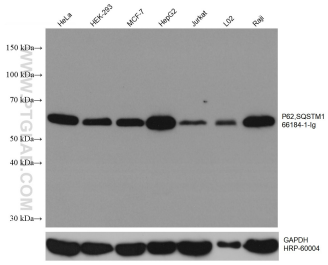
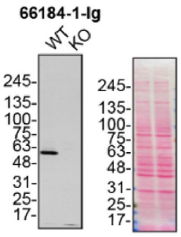
E: proteintech@ptglab.com
W: ptglab.com

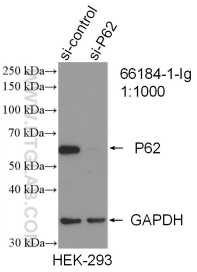
Selected Validation Data



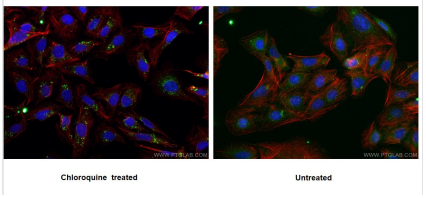
Various lysates were subjected to SDS PAGE followed by western blot with 66184-1-Ig (P62,SQSTM1 antibody) at dilution of 1:40000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



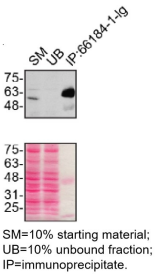
U2OS (WT and SQSTM1 KO) lysates prepared with RIPA buffer, 25 µg protein loaded. 66184-1-Ig incubated at 1:1000 at 4°C overnight in 5% milk in TBST. Ponceau stained transfers shown on right. Data provided by YCharOS, an open science company with a mission to validate commercial antibodies to improve scientific reproducibility and transparency.



WB result of P62,SQSTM1 antibody (66184-1-Ig; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-P62/SQSTM1 transfected HEK-293 cells.

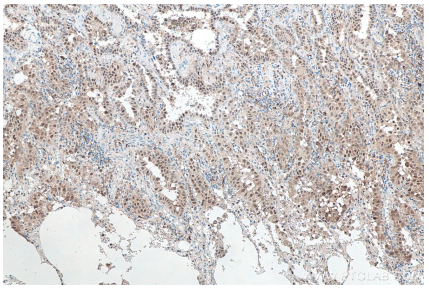


Immunofluorescent analysis of (-20°C Ethanol) fixed U2OS cells using P62/SQSTM1 antibody (66184-1-Ig, Clone: 1H5C1) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), CL594-Phalloidin (red).

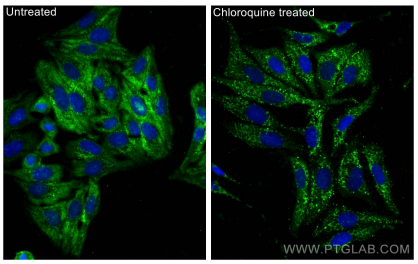


SM=10% starting material;
UB=10% unbound fraction;
IP=immunoprecipitate.

U2OS lysates prepared and IP of SQSTM1 performed using 1.0 µg of 66184-1-Ig coupled to protein G- Sepharose beads. The Ponceau stained transfers of each blot are shown. Data provided by YCharOS, an open science company with a mission to validate commercial antibodies to improve scientific reproducibility and transparency.



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66184-1-Ig (P62,SQSTM1 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed Chloroquine treated HepG2 cells using P62,SQSTM1 antibody (66184-1-Ig, Clone: 1H5C1) at dilution of 1:800 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1).