

For Research Use Only

SUMO1 Monoclonal antibody

Catalog Number: 67559-1-Ig **2 Publications**



Basic Information

| | | |
|---|---|--|
| Catalog Number: 67559-1-Ig | GenBank Accession Number: BC006462 | Purification Method: Protein A purification |
| Size: 150ul, Concentration: 1600 ug/ml by Nanodrop and 1000 ug/ml by Bradford method using BSA as the standard; | GeneID (NCBI): 7341 | CloneNo.: 3B5B5 |
| Source: Mouse | UNIPROT ID: P63165 | Recommended Dilutions: WB 1:1000-1:6000 IHC 1:500-1:2000 IF/ICC 1:800-1:3200 |
| Isotype: IgG1 | Full Name: SMT3 suppressor of mif two 3 homolog 1 (S. cerevisiae) | |
| Immunogen Catalog Number: AG29402 | Calculated MW: 12 kDa | |
| | Observed MW: 15-100 kDa | |

Applications

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

Cited Applications:
WB, IP

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse

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, HEK-293 cells, HepG2 cells, Jurkat cells, HSC-T6 cells, NIH/3T3 cells, 4T1 cells

IHC : mouse kidney tissue, rat kidney tissue, rat small intestine tissue

IF/ICC : MCF-7 cells, A549 cells

Background Information

Ubiquitin is most famous for its function in targeting proteins for degradation by the 26S proteasome, ubiquitin needs to be attached to a substrate in chains (polyubiquitylation) before being recognized by proteasome. Similarly, SUMO (small ubiquitin-related modifier) can be linked to substrates in chains (polysumoylation), SUMO modification has been implicated in many important cellular processes including the control of genome stability, signal transduction, targeting to and formation of nuclear compartments, cell cycle and meiosis. There are 4 confirmed SUMO isoforms in human, SUMO-1, SUMO-2, SUMO-3 and SUMO-4. SUMO-2 and SUMO-3 are nearly identical but are distinct from SUMO-1. SUMO2/3 conjugation was recently widely involved in neuroprotective activities. A substitution (M55V) of SUMO4 was strongly associated with the pathogenesis of type 1 diabetes (T1D) involving NF kappa B related mechanisms. This antibody can detect endogenous levels of SUMOylated proteins (e.g. SUMO-1-RanGAP at 80-90 kD).

Notable Publications

| Author | Pubmed ID | Journal | Application |
|-----------------|-----------|---------------------|-------------|
| Michael Tellier | 39432454 | PLoS One | WB |
| Shuo Peng | 36750014 | Biomed Pharmacother | IP |

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

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

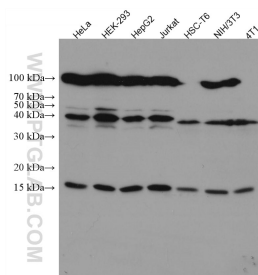
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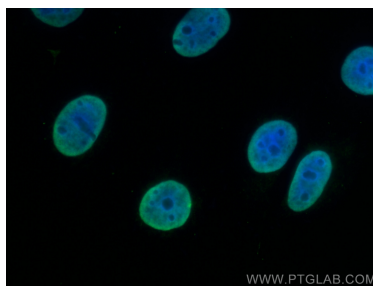
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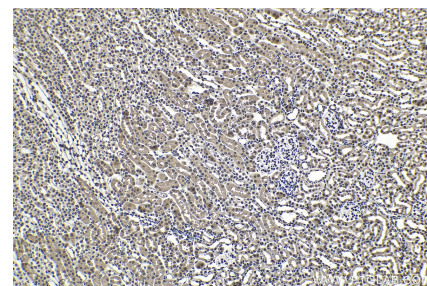
Selected Validation Data



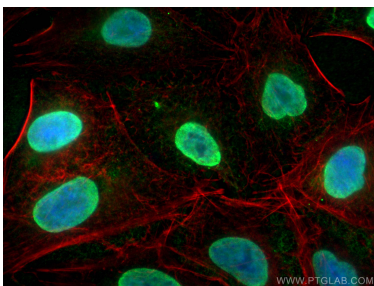
Various lysates were subjected to SDS PAGE followed by western blot with 67559-1-Ig (SUMO1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using SUMO1 antibody (67559-1-Ig, Clone: 3B5B5) at dilution of 1:1600 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L).



Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 67559-1-Ig (SUMO1 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed A549 cells using SUMO1 antibody (67559-1-Ig, Clone: 3B5B5) at dilution of 1:3200 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L), CL594-phalloidin (red).