

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 G 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	Positive Controls:
Cited Applications: WB, IP	WB : HeLa cells, HEK-293 cells, HepG2 cells, Jurkat cells, HSC-T6 cells, NIH/3T3 cells, 4T1 cells
Species Specificity: human, mouse, rat	IHC : mouse kidney tissue, rat kidney tissue, rat small intestine tissue
Cited Species: human, mouse	IF/ICC : MCF-7 cells, A549 cells
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	

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

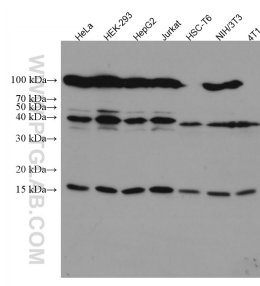
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

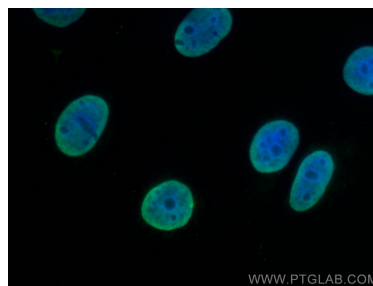
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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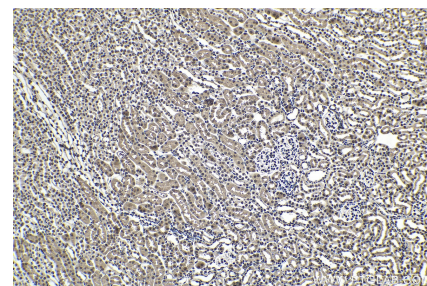
Selected Validation Data



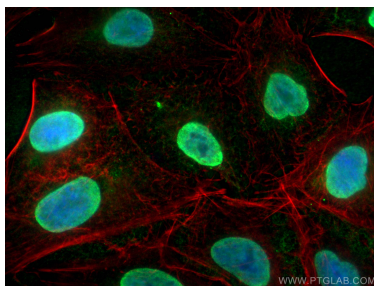
Various lysates were subjected to SDS PAGE followed by western blot with 67559-1-Ig (SUMO1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



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 AffiniPure 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 AffiniPure Goat Anti-Mouse IgG(H+L), CL594-phalloidin (red).