

For Research Use Only

# SUMO1 Polyclonal antibody

Catalog Number: 10329-1-AP **27 Publications**



## Basic Information

<b>Catalog Number:</b> 10329-1-AP	<b>GenBank Accession Number:</b> BC006462	<b>Purification Method:</b> Antigen affinity purification
<b>Concentration:</b> 700 ug/ml	<b>GeneID (NCBI):</b> 7341	<b>Recommended Dilutions:</b> WB 1:1000-1:4000
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P63165	IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
<b>Isotype:</b> IgG	<b>Full Name:</b> SMT3 suppressor of mif two 3 homolog 1 (S. cerevisiae)	IHC 1:50-1:500
<b>Immunogen Catalog Number:</b> AG0414	<b>Calculated MW:</b> 12 kDa	IF/ICC 1:200-1:800
	<b>Observed MW:</b> 12-18 kDa, 80-90 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IF/ICC, FC (Intra), IP, ELISA	<b>Positive Controls:</b> WB : A549 cells, HeLa cells, NIH/3T3 cells, PC-12 cells
<b>Cited Applications:</b> WB, IF, IP, ColP	IP : HeLa cells,
<b>Species Specificity:</b> human, mouse, rat	IHC : human testis tissue,
<b>Cited Species:</b> human, mouse, rat	IF/ICC : 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
Shuai Huang	31660066	Theranostics	WB
Xiaoli Xu	30184152	J Mol Cell Biol	WB
Hongrui Wang	36244448	J Biol Chem	WB

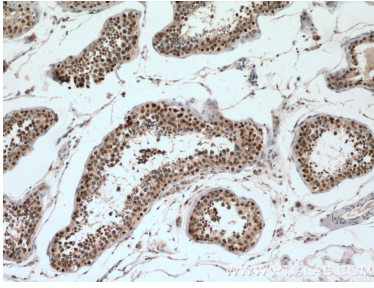
## Storage

**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

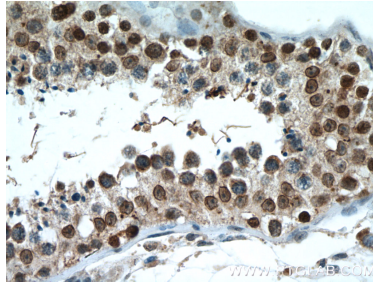
For technical support and original validation data for this product please contact:  
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

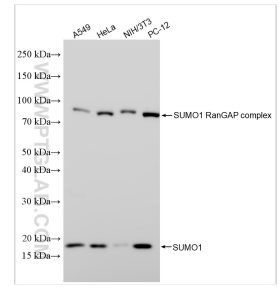
## Selected Validation Data



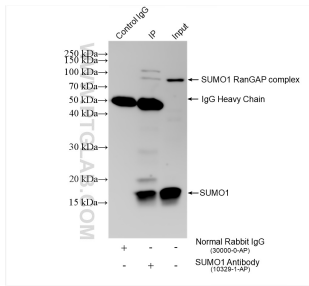
Immunohistochemical analysis of paraffin-embedded human testis tissue slide using 10329-1-AP (SUMO1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



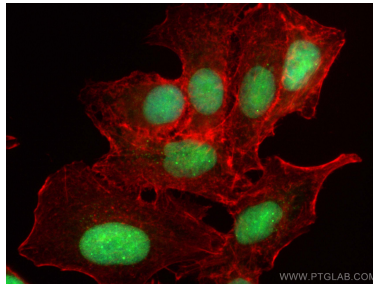
Immunohistochemical analysis of paraffin-embedded human testis tissue slide using 10329-1-AP (SUMO1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



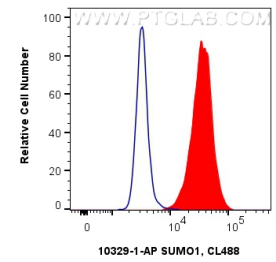
Various lysates were subjected to SDS PAGE followed by western blot with 10329-1-AP (SUMO1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



IP result of anti-SUMO1 (IP:10329-1-AP, 4ug; Detection:10329-1-AP 1:800) with HeLa cells lysate 1600 ug.



Immunofluorescent analysis of (4% PFA) fixed A549 cells using SUMO1 antibody (10329-1-AP) at dilution of 1:400 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-phalloidin (red).



$1 \times 10^6$  A549 cells were intracellularly stained with 0.4 ug Anti-Human SUMO1 (10329-1-AP) and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-0-AP, Clone: ) (blue). Cells were fixed and permeabilized with True-Nuclear Transcription Factor Buffer Set.