

For Research Use Only

SUMO1 Polyclonal antibody

Catalog Number: 10329-1-AP

27 Publications



Basic Information

Catalog Number:

10329-1-AP

Size:

150ul, Concentration: 700 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG0414

GenBank Accession Number:

BC006462

GeneID (NCBI):

7341

UNIPROT ID:

P63165

Full Name:

SMT3 suppressor of mif two 3 homolog 1 (S. cerevisiae)

Calculated MW:

12 kDa

Observed MW:

12~18 kDa, 80-90 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:1000-1:4000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF/ICC 1:200-1:800

Applications

Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

Cited Applications:

WB, IF, IP, ColP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat

Positive Controls:

WB: A549 cells, HeLa cells, NIH/3T3 cells, PC-12 cells

IP: HeLa cells,

IHC: human testis tissue,

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 kDa).

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, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

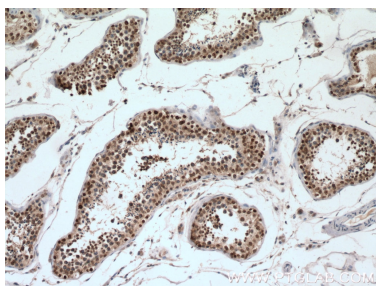
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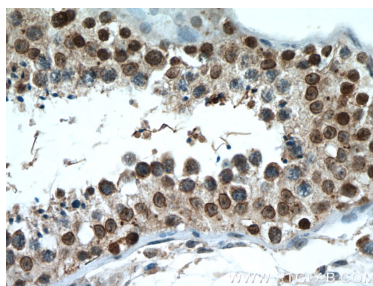
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W: ptglab.com

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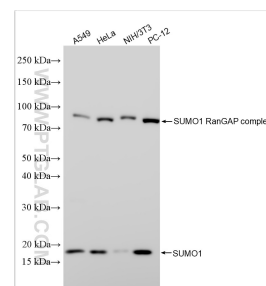
Selected Validation Data



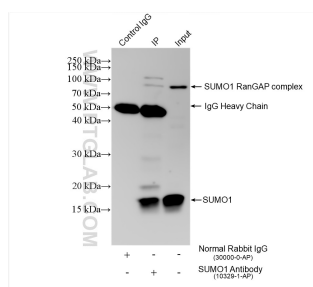
Immunohistochemical analysis of paraffin-embedded human testis tissue slide using 10329-1-AP (SUMO1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



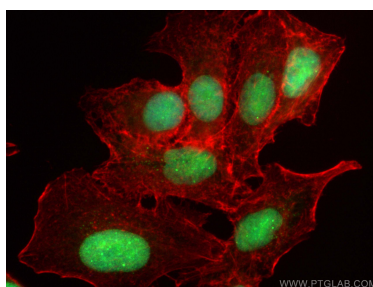
Immunohistochemical analysis of paraffin-embedded human testis tissue slide using 10329-1-AP (SUMO1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



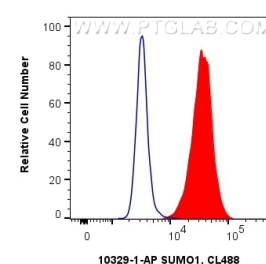
Various lysates were subjected to SDS PAGE followed by western blot with 10329-1-AP (SUMO1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



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).



1X10⁶ 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-O-AP, Clone:) (blue). Cells were fixed and permeabilized with True-Nuclear Transcription Factor Buffer Set.