

For Research Use Only

# SUMO2/3 Monoclonal antibody

Catalog Number: 67154-1-Ig

Featured Product

2 Publications



## Basic Information

### Catalog Number:

67154-1-Ig

### Size:

150ul, Concentration: 2100 ug/ml by 6613  
Nanodrop and 1000 ug/ml by Bradford  
method using BSA as the standard;

### Source:

Mouse

### Isotype:

IgG2b

### Immunogen Catalog Number:

AG28672

### GenBank Accession Number:

BC008450

### GeneID (NCBI):

6613

### UNIPROT ID:

P61956

### Full Name:

SMT3 suppressor of mif two 3  
homolog 2 (S. cerevisiae)

### Calculated MW:

11 kDa

### Observed MW:

18 kDa

### Purification Method:

Protein A purification

### CloneNo.:

1A1B3

### Recommended Dilutions:

WB 1:1000-1:6000

IHC 1:250-1:1000

IF/ICC 1:400-1:1600

## Applications

### Tested Applications:

WB, IHC, IF/ICC, ELISA

### Cited Applications:

WB

### Species Specificity:

human, mouse, rat

### Cited Species:

human

**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** : HEK-293 cells, Jurkat cells, A549 cells, NIH/3T3  
cells, K-562 cells, HSC-T6 cells, PC-12 cells

**IHC** : human prostate cancer tissue, human breast  
cancer tissue

**IF/ICC** : HeLa 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.

## Notable Publications

Author	Pubmed ID	Journal	Application
Marjolein van Sluis	38600236	Nat Cell Biol	WB
Orhi Barroso-Gomila	37996419	Nat Commun	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

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

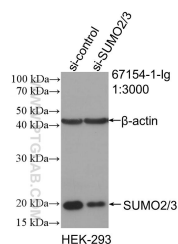
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free  
in USA), or 1(312) 455-8498 (outside USA)

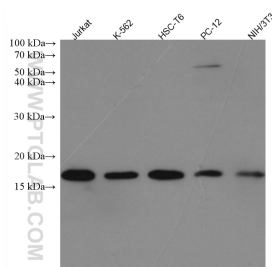
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

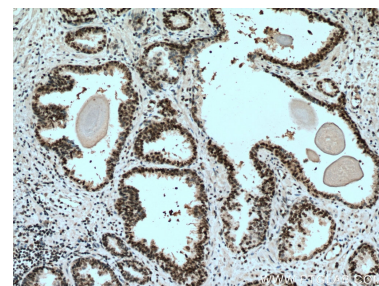
## Selected Validation Data



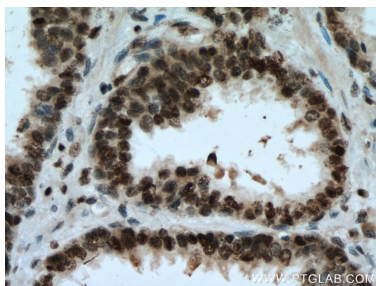
WB result of SUMO2/3 antibody (67154-1-Ig; 1:3000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SUMO2/3 transfected HEK-293 cells.



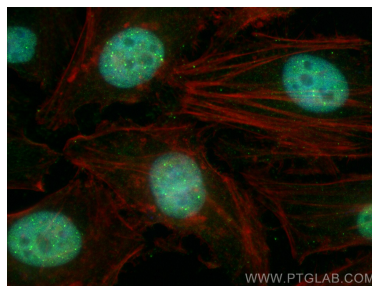
Various lysates were subjected to SDS PAGE followed by western blot with 67154-1-Ig (SUMO2/3 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



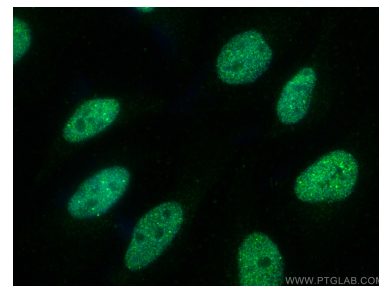
Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 67154-1-Ig (SUMO2/3 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 67154-1-Ig (SUMO2/3 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using SUMO2/3 antibody (67154-1-Ig, Clone: 1A1B3) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1), CL594-phalloidin (red).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using SUMO2/3 antibody (67154-1-Ig, Clone: 1A1B3) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).