## For Research Use Only

## SUMO1 Polyclonal antibody, PBS Only

Catalog Number:10329-1-PBS



**Basic Information** 

Catalog Number:

GenBank Accession Number:

**Purification Method:** 

Antigen affinity purification

10329-1-PBS

Size: 1 mg/ml BC006462 GeneID (NCBI):

GenelD (

7341

Source: UNIPROT ID: Rabbit P63165

P63165 Full Name:

Isotype:

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

Immunogen Catalog Number: AG0414

C. I. I. C. IAMA

12 kDa

Calculated MW:

Observed MW:

12~18 kDa, 80-90 kDa

**Applications** 

**Tested Applications:** 

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

Species Specificity:

human, mouse, rat

## **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-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).

Storage

Storage:

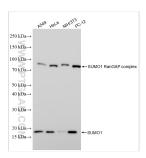
Store at -80°C.

The product is shipped with ice packs. Upon receipt, store it immediately at -80°C Storage Ruffor.

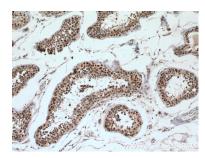
Storage Buffer:

PBS Only

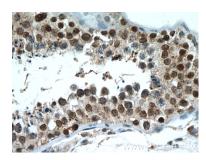
## **Selected Validation Data**



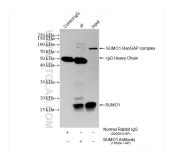
Various lysates were subjected to SDS PAGE followed by western blot with 10329-1-AP (SUMO 1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 10329-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffinembedded human testis tissue slide using 10329-1-AP (SUMO 1 antibody) at dilution of 1:200 (under  $10 \times 100$  lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 10329-1-PBS in a different storage buffer formulation.



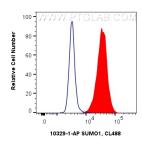
Immunohistochemical analysis of paraffinembedded human testis tissue slide using 10329-1-AP (SUMO 1 antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval wirth Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 10329-1-PBS in a different storage buffer formulation.



IP result of anti-SUMO1 (IP:10329-1-AP, 4ug; Detection:10329-1-AP 1:800) with HeLa cells lysate 1600 ug. This data was developed using the same antibody clone with 10329-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed A549 cells using SUM01 antibody (10329-1-AP) at dilution of 1:400 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(IH-L) (SA00013-2), CL594-phalloidin (red). This data was developed using the same antibody clone with 10329-1-PBS in a different storage buffer formulation.



1X10^6 A549 cells were intracellularly stained with 0.4 ug Anti-Human SUMO1 (10329-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit 1gG(H+L) at dilution 1:1000 (red), or 0.4 ug Rabbit 1gG control Rabbit PolyAb (30000-0-AP, Clone:) (blue). Cells were fixed and permeabilized with True-Nuclear Transcription Factor Buffer Set. This data was developed using the same antibody clone with 10329-1-PBS in a different storage buffer formulation.