

## SUMO2/3 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AW5087

### Specification

## SUMO2/3 Antibody (C-term) - Product Information

Application Primary Accession Other Accession

Reactivity Predicted

Host Clonality Calculated MW Isotype Antigen Source IF, WB,E P55854 Q7SZ22, Q5XIF4, Q9Z172, Q6DI05, Q17QV3, P61959, P61958, P61957, Q2PFW2, P61956, Q6DHL4, Q6LDZ8, Q5ZJM9, P61955, Q6NV25, Q6GPW2, Q7ZTK7 Human, Mouse Xenopus, Zebrafish, Bovine, Chicken, Hamster, Monkey, Pig, Rat Rabbit Polyclonal H=12;M=12;Rat=12 KDa Rabbit IgG HUMAN

### SUMO2/3 Antibody (C-term) - Additional Information

Gene ID 6612

Antigen Region 49-81

**Other Names** SUMO3; SMT3B; SMT3H1; Small ubiquitin-related modifier 3; SMT3 homolog 1; SUMO-2; Ubiquitin-like protein SMT3B

**Dilution** IF~~1:25 WB~~1:1000

Target/Specificity

This SUMO2/3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 49-81 amino acids from the C-terminal region of human SUMO2/3.

### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

SUMO2/3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic



procedures.

## SUMO2/3 Antibody (C-term) - Protein Information

Name SUMO3 (HGNC:11124)

Function

Ubiquitin-like protein which can be covalently attached to target lysines either as a monomer or as a lysine-linked polymer. Does not seem to be involved in protein degradation and may function as an antagonist of ubiquitin in the degradation process. Plays a role in a number of cellular processes such as nuclear transport, DNA replication and repair, mitosis and signal transduction. Covalent attachment to its substrates requires prior activation by the E1 complex SAE1-SAE2 and linkage to the E2 enzyme UBE2I, and can be promoted by an E3 ligase such as PIAS1-4, RANBP2 or CBX4 (PubMed:<a href="http://www.uniprot.org/citations/11451954" target="\_blank">11451954</a>, PubMed:<a href="http://www.uniprot.org/citations/11451954" target="\_blank">11451954</a>, PubMed:<a href="http://www.uniprot.org/citations/11451954" target="\_blank">18538659</a>, PubMed:<a href="http://www.uniprot.org/citations/11451954" target="\_blank">18538659</a>, PubMed:<a href="http://www.uniprot.org/citations/11451954" target="\_blank">18538659</a>, PubMed:<a href="http://www.uniprot.org/citations/11451954" target="\_blank">18538659</a>, PubMed:<a href="http://www.uniprot.org/citations/18538659" target="\_blank">18538659</a>, PubMed:<a href="http://www.uniprot.org/citations/18538659" target="\_blank">21965678</a>). Plays a role in the regulation of sumoylation status of SETX

(PubMed:<a href="http://www.uniprot.org/citations/24105744" target="\_blank">24105744</a>).

Cellular Location Cytoplasm. Nucleus. Nucleus, PML body

**Tissue Location** Expressed predominantly in liver.

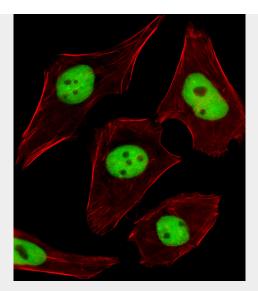
## SUMO2/3 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

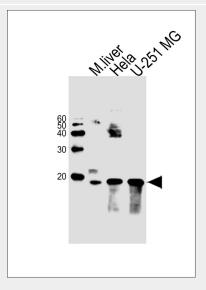
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

SUMO2/3 Antibody (C-term) - Images





Fluorescent image of U251 cells stained with SUMO2/3 Antibody(C-term) (Cat#AW5087). AW5087 was diluted at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).



Western blot analysis of lysates from mouse liver tissue,Hela,U-251 MG cell line (from left to right), using SUMO2/3 Antibody (C-term)(Cat. #AW5087). AW5087 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.

# SUMO2/3 Antibody (C-term) - Background

SUMO2 and SUMO3 are members of the SUMO (small ubiquitin-like modifier) protein family. This protein family functions in a manner similar to ubiquitin in that it is bound to target proteins as part of a post-translational modification system. However, unlike ubiquitin which targets proteins for degradation, this protein is involved in a variety of cellular processes, such as nuclear transport, transcriptional regulation, apoptosis, and protein stability. In vertebrates, three members of the SUMO family have been described, SUMO 1 and the functionally distinct homologues SUMO 2 and SUMO 3. SUMO modification sites present in the N terminal regions of SUMO 2 and SUMO 3 are utilized by SAE1/SAE2 (SUMO E1) and Ubc9 (SUMO E2) to form polymeric chains of SUMO 2 and SUMO 3 on protein substrates, a property not shared by SUMO 1.

# SUMO2/3 Antibody (C-term) - References



Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002). Lapenta, V., et al., Genomics 40(2):362-366 (1997).