**Pan SUMO Antibody**
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1290a

**Specification**

**Pan SUMO Antibody - Product Information**

<table>
<thead>
<tr>
<th>Application</th>
<th>IHC-P, IF, WB, E</th>
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</thead>
<tbody>
<tr>
<td>Primary Accession</td>
<td><strong>P55854</strong></td>
</tr>
<tr>
<td>Reactivity</td>
<td>Human, Rat</td>
</tr>
<tr>
<td>Host</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Clonality</td>
<td>Polyclonal</td>
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<tr>
<td>Isotype</td>
<td>Rabbit Ig</td>
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</tbody>
</table>

**Gene ID** 6612

**Other Names**
Small ubiquitin-related modifier 3, SUMO-3, SMT3 homolog 1

**Target/Specificity**
"This Pan SUMO antibody recognizes SUMO2 and SUMO3. This antibody is generated from rabbits immunized with a recombinant protein encoding full length human SUMO3."

**Dilution**
IHC-P — 1:50–100
IF — 1:10–50
WB — 1:1000

**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**
Pan SUMO Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Pan SUMO Antibody - Protein Information**

Immunohistochemical analysis of paraffin-embedded H.bladder section using Pan SUMO Antibody(Cat#AP1290a). AP1290a was diluted at 1:100 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.

Fluorescent confocal image of Hela cell stained with Pan SUMO Antibody(Cat#AP1290a). Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with Pan SUMO primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400,
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/18538659" target="_blank">18538659</a>, PubMed:<a href="http://www.uniprot.org/citations/21965678" 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.

Pan SUMO Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytometry
- Cell Culture

Pan SUMO Antibody - Background

Covalent modification of target lysines by SUMO (small ubiquitin-like modifier) modulates processes such as protein localization, transcription, nuclear transport, mitosis, DNA replication and repair, signal transduction, and viral reproduction. SUMO does not seem to be involved in protein degradation and may in fact function as an antagonist of ubiquitin in the degradation process. The SUMO family consists
of SUMO1 and closely related homologs SUMO2, SUMO3, and SUMO4. Sumoylation has been shown to regulate a wide range of proteins, including MDM2, PIAS, PML, RanGAP1, RanBP2, p53, p73, HIPK2, TEL, c-Jun, Fas, Daxx, TNFR1, Topo-I, Topo-II, PARK2, WRN, Sp100, IkB-alpha, Androgen receptor (AR), GLUT1/4, CaMK, DNMT3B, TDG, HIF1A, CHD3, EXOSC9, RAD51, and viral targets such as CMV-IE1/2, EBV-BZLF1, and HPV/BPV-E1.

Pan SUMO Antibody - References


Pan SUMO Antibody - Citations

- **Ehrlichia chaffeensis Exploits Host SUMOylation Pathways To Mediate Effector-Host Interactions and Promote Intracellular Survival.**
- **Poly-small ubiquitin-like modifier (PolySUMO)-binding proteins identified through a string search.**
- **Generation and nuclear translocation of sumoylated transmembrane fragment of cell adhesion molecule L1.**