10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# SUMO3 Antibody
**Purified Mouse Monoclonal Antibody (Mab)**
**Catalog # AM1201a**

## Specification

### SUMO3 Antibody - Product Information

| | |
|---|---|
| Application | **WB,E** |
| Primary Accession | P55854 |
| Reactivity | **Human** |
| Host | **Mouse** |
| Clonality | **Monoclonal** |
| Isotype | **Mouse IgG1** |

### SUMO3 Antibody - Additional Information

**Gene ID** 6612

**Other Names**
Small ubiquitin-related modifier 3, SUMO-3, SMT3 homolog 1 {ECO:0000312|HGNC:HGNC:11124}, SUMO-2, Ubiquitin-like protein SMT3A, Smt3A, SUMO3 (<a href="http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=11124" target="_blank">HGNC:11124</a>)

**Target/Specificity**
Purified recombinant GST-SUMO3 fusion protein was used as immunogen.

**Dilution**
WB~~1:2000

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, 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**
SUMO3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### SUMO3 Antibody - 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:11451954, PubMed:18538659, PubMed:21965678). Plays a role in the regulation of sumoylation status of SETX (PubMed:24105744).

**Cellular Location**
Cytoplasm. Nucleus. Nucleus, PML body

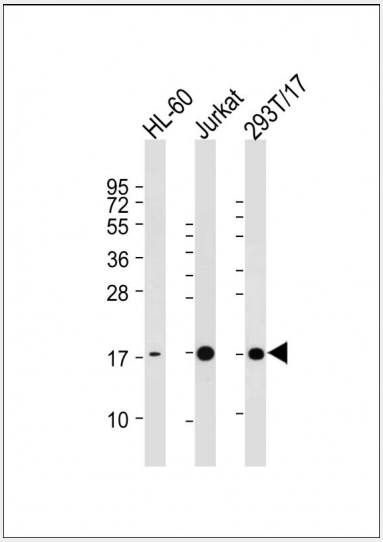
**Tissue Location**
Expressed predominantly in liver.

## SUMO3 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 Cytomety
- Cell Culture

## SUMO3 Antibody - Images




All lanes : Anti-SUMO3 Antibody at 1:2000 dilution Lane 1: HL-60 whole cell lysate Lane 2: Jurkat whole cell lysate Lane 3: 293T/17 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 12 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

## SUMO3 Antibody - Background

SUMO proteins, such as SUMO3, and ubiquitin (see MIM 191339) posttranslationally modify numerous cellular proteins and affect their metabolism and function. However, unlike ubiquitination, which targets proteins for degradation, sumoylation participates in a number of cellular processes, such as nuclear transport, transcriptional regulation, apoptosis, and protein

stability (Su and Li, 2002 [PubMed 12383504]).

**SUMO3 Antibody - References**

SENP3-mediated de-conjugation of SUMO2/3 from promyelocytic leukemia is correlated with accelerated cell proliferation under mild oxidative stress. Han Y, et al. J Biol Chem, 2010 Apr 23. PMID 20181954. Association of mitotic regulation pathway polymorphisms with pancreatic cancer risk and outcome. Couch FJ, et al. Cancer Epidemiol Biomarkers Prev, 2010 Jan. PMID 20056645. The p150 subunit of CAF-1 causes association of SUMO2/3 with the DNA replication foci. Uwada J, et al. Biochem Biophys Res Commun, 2010 Jan 1. PMID 19919826. SUMOylation of nuclear actin. Hofmann WA, et al. J Cell Biol, 2009 Jul 27. PMID 19635839. Heat shock protein 27 is involved in SUMO-2/3 modification of heat shock factor 1 and thereby modulates the transcription factor activity. Brunet Simioni M, et al. Oncogene, 2009 Sep 17. PMID 19597476.

**SUMO3 Antibody - Citations**

- Scc1 sumoylation by Mms21 promotes sister chromatid recombination through counteracting Wapl.