

**SUMO2/3 Antibody (Center)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP1223d****Specification**

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**SUMO2/3 Antibody (Center) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P55854</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	11637
Antigen Region	38-64

**SUMO2/3 Antibody (Center) - 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 ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=11124](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=11124))

**Target/Specificity**

This SUMO2/3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 38-64 amino acids from the Central region of human SUMO2/3.

**Dilution**

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**

SUMO2/3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**SUMO2/3 Antibody (Center) - 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

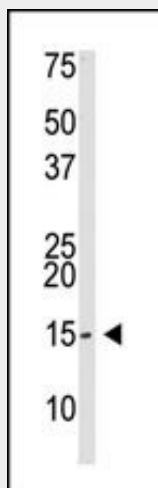
**Tissue Location**

Expressed predominantly in liver.

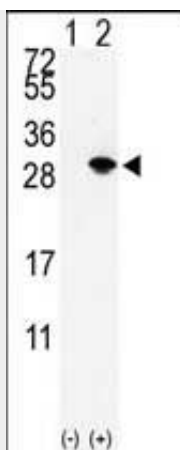
**SUMO2/3 Antibody (Center) - Protocols**

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](#)

**SUMO2/3 Antibody (Center) - Images**

The anti-SUMO2/3 Pab (Cat.#AP1223d) is used in Western blot to detect SUMO2/3 in Saos-2 cell lysate.



Western blot analysis of SUMO3 (arrow) using rabbit polyclonal SUMO2/3 Antibody (Center) (Cat.#AP1223d). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the SUMO3 gene (Lane 2) (Origene Technologies).

#### **SUMO2/3 Antibody (Center) - 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 (Center) - 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).  
Mannen, H., et al., Biochem. Biophys. Res. Commun. 222(1):178-180 (1996).