

SUMO2/3 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1223a**Specification**

SUMO2/3 Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	P61956
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

SUMO2/3 Antibody (N-term) - Additional Information**Gene ID** 6613**Other Names**

Small ubiquitin-related modifier 2, SUMO-2, HSMT3, SMT3 homolog 2
{ECO:0000312|HGNC:HGNC:11125}, SUMO-3, Sentrin-2, Ubiquitin-like protein SMT3B, Smt3B,
SUMO2 (<a href="http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=11125"
target="_blank">HGNC:11125)

Dilution

WB~~1:2000

E~~Use at an assay dependent concentration.

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 (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SUMO2/3 Antibody (N-term) - Protein Information**Name** SUMO2 ([HGNC:11125](#))

Function Ubiquitin-like protein that can be covalently attached to proteins as a monomer or as a lysine-linked polymer. Covalent attachment via an isopeptide bond 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, CBX4 or ZNF451 (PubMed:[26524494](#)). This post-translational modification on lysine residues of proteins plays a crucial role in a number of

cellular processes such as nuclear transport, DNA replication and repair, mitosis and signal transduction. Polymeric SUMO2 chains are also susceptible to polyubiquitination which functions as a signal for proteasomal degradation of modified proteins (PubMed:[18408734](#), PubMed:[18538659](#), PubMed:[21965678](#), PubMed:[9556629](#)). Plays a role in the regulation of sumoylation status of SETX (PubMed:[24105744](#)).

Cellular Location

Nucleus. Nucleus, PML body.

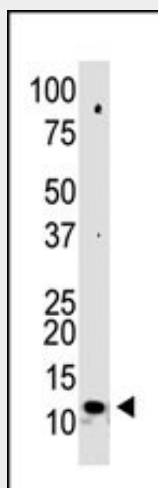
Tissue Location

Broadly expressed..

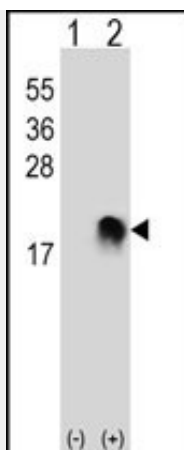
SUMO2/3 Antibody (N-term) - Protocols

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

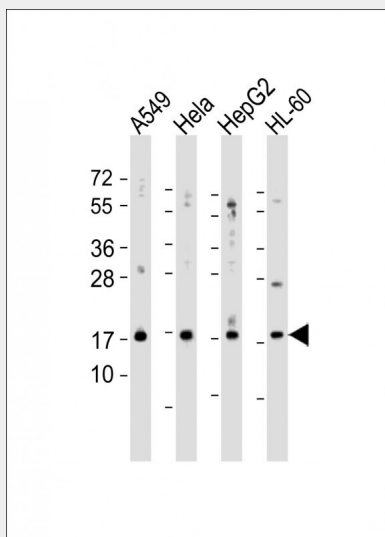
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SUMO2/3 Antibody (N-term) - Images

Western blot analysis of anti-SUMO2/3 N-term polyclonal antibody (Cat. #AP1223a) in 293 cell lysate. Sumo2/3 (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



Western blot analysis of SUMO2/3 (arrow) using rabbit polyclonal SUMO2/3 Antibody (M1) (Cat. #AP1223a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the SUMO2/3 gene.



All lanes : Anti-SUMO2/3 Antibody (M1) at 1:2000 dilution Lane 1: A549 whole cell lysates Lane 2: HeLa whole cell lysates Lane 3: HepG2 whole cell lysates Lane 4: HL-60 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 11 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

SUMO2/3 Antibody (N-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 (N-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). Mannen, H., et al., Biochem. Biophys. Res. Commun.

222(1):178-180 (1996).

SUMO2/3 Antibody (N-term) - Citations

- [The Hydrogen-Coupled Oligopeptide Membrane Cotransporter Pept2 is SUMOylated in Kidney Distal Convoluted Tubule Cells](#)
- [Regulation of the Ets-1 transcription factor by sumoylation and ubiquitinylation.](#)