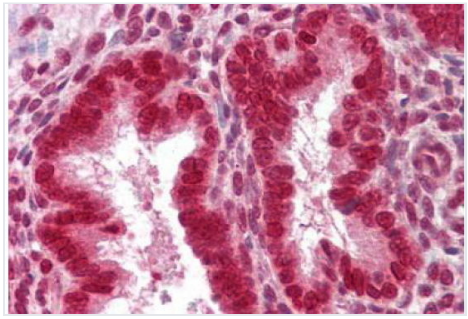
SUMO1 Antibody – Rabbit Polyclonal

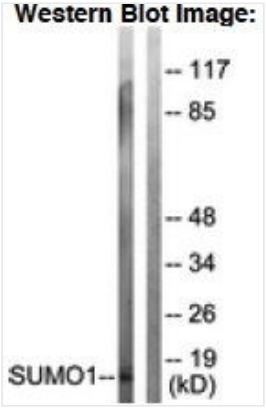
PRODUCT OVERVIEW

Product Name	SUMO1, Polyclonal Antibody
Full Product Name	SUMO1, NT (SUMO1, SMT3C, SMT3H3, SMT3 Suppressor of Mif Two 3 Homolog 1)
Product Gene Name	anti-SUMO1 antibody
Product Synonym Names	Anti -SUMO1, NT (SUMO1, SMT3C, SMT3H3, SMT3 Suppressor of Mif Two 3 Homolog 1)
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Supplied as a liquid in PBS, (without Mg2+, Ca2+), pH 7.4, 150mM sodium chloride, 0.02% sodium azide, 50% glycerol.
Purity/Purification	Affinity Purified Purified by immunoaffinity chromatography
Specificity	Recognizes human SUMO1. Species Crossreactivity: Mouse, rat.
Preparation and Storage	May be stored at 4 degree C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20 degree C. Aliquots are stable for at least 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	11,557 Da
Chromosome Location	Chromosome: 2; NC_000002.11 (203070903..203103322, complement). Location: 2q33
OMIM	601912
3D Structure	ModBase 3D Structure for P63165
Immunogen	Synthetic peptide corresponding to human SUMO1 at N-Terminal.
Product Categories/Family for anti-SUMO1 antibody	Antibodies; Abs to Ubiquitin
Applications Tested/Suitable for anti-SUMO1 antibody	ELISA (EL/EIA), Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)
Application Notes for anti-SUMO1 antibody	Suitable for use in Immunofluorescence, ELISA, Western Blot, Immunohistochemistry. Dilution: Immunofluorescence: 1:100-1:500 ELISA: 1:20,000 Western Blot: 1:500-1:1000 Immunohistochemistry (Paraffin): 10ug/ml
Related Product Information for anti-SUMO1 antibody	This gene encodes a protein that is a member of the SUMO (small ubiquitin-like modifier) protein family. It 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. It is not active until the last four amino acids of the carboxy-terminus have been cleaved off. Several pseudogenes have been reported for this gene. Alternate transcriptional splice variants encoding different isoforms have been characterized.

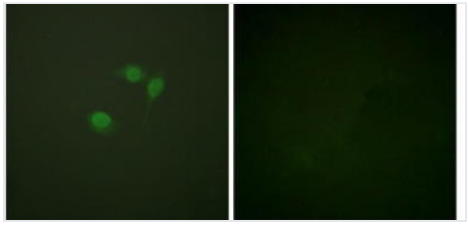
Other Notes	Small volumes of anti-SUMO1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SUMO1 purchase	MBS6010027 is an antibody targeting SUMO1. Also known as SUMO1, NT (SUMO1, SMT3C, SMT3H3, SMT3 Suppressor of Mif Two 3 Homolog 1). Reactive in Human, Mouse, Rat. Host: Rabbit.



Immunohistochemistry (IHC) of anti-SUMO1 antibody
Human Uterus: Formalin-Fixed, Paraffin-Embedded (FFPE)



Western Blot (WB) of anti-SUMO1 antibody
IWestern blot analysis of extracts from 293 cells, using Sumo1. The lane on the right is treated with the synthesized peptide.



Immunofluorescence (IF) of anti-SUMO1 antibody
Immunofluorescence analysis of NIH-3T3 cells, using Sumo1. The picture on the right is treated with the synthesized peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SUMO1. It may not necessarily be applicable to this product.

NCBI GI #	54792067
NCBI GeneID	7341
NCBI Accession #	NP_001005782.1
UniProt Primary Accession #	P63165
UniProt Secondary Accession #	P55856; Q6FGG0; Q6NZ62; Q93068; A8MUS8; B2R4I5
UniProt Related Accession #	P63165
GenBank Nucleotide #	NM_001005782.1
NCBI Official Full Name	small ubiquitin-related modifier 1 isoform b
NCBI Official Synonym Full Names	small ubiquitin-like modifier 1
NCBI Official Symbol	SUMO1
NCBI Official Synonym Symbols	DAP1; GMP1; PIC1; SMT3; UBL1; OFC10; SENP2; SMT3C; SMT3H3
UniProt Protein Name	Small ubiquitin-related modifier 1
UniProt Synonym Protein Names	GAP-modifying protein 1; GMP1; SMT3 homolog 3; Sentrin; Ubiquitin-homology domain protein PIC1; Ubiquitin-like protein SMT3C; Smt3C; Ubiquitin-like protein UBL1

Protein Family	Small ubiquitin-related modifier
UniProt Gene Name	SUMO1
UniProt Synonym Gene Names	SMT3C; SMT3H3; UBL1; SUMO-1; GMP1; Smt3C
UniProt Entry Name	SUMO1_HUMAN
NCBI Protein Information	small ubiquitin-related modifier 1; sentrin; SMT3 homolog 3; GAP modifying protein 1; ubiquitin-like protein UBL1; ubiquitin-like protein SMT3C; SMT3 suppressor of mif two 3 homolog 1; ubiquitin-homology domain protein PIC1
UniProt Comments for SUMO1	SUMO1: Ubiquitin-like protein that can be covalently attached to proteins as a monomer or 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 E3 ligases such as PIAS1-4, RANBP2 or CBX4. 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. Involved for instance in targeting RANGAP1 to the nuclear pore complex protein RANBP2. Polymeric SUMO1 chains are also susceptible to polyubiquitination which functions as a signal for proteasomal degradation of modified proteins. May also regulate a network of genes involved in palate development. Interacts with SAE2, UBE2I, RANBP2, PIAS1 and PIAS2. Interacts with PARK2. Covalently attached to a number of proteins such as IKFZ1, PML, RANGAP1, HIPK2, SP100, p53, p73-alpha, MDM2, JUN, DNMT3B and TDG. Also interacts with HIF1A, HIPK2, HIPK3, CHD3, EXOSC9, RAD51 and RAD52. Interacts with USP25 (via ts SIM domain); the interaction weakly sumoylates USP25. Belongs to the ubiquitin family. SUMO subfamily. Protein type: Ubiquitin-like modifier; Nuclear receptor co-regulator Chromosomal Location of Human Ortholog: 2q33 Cellular Component: nucleoplasm; PML body; nuclear membrane; dendrite; cytoplasm; fibrillar center; nucleolus; nuclear speck; nuclear pore; synapse; nucleus Molecular Function: protein binding; ubiquitin protein ligase binding; SUMO ligase activity; transcription factor binding Biological Process: cytokine and chemokine mediated signaling pathway; negative regulation of transcription factor activity; PML body organization and biogenesis; palate development; post-translational protein modification; DNA repair; negative regulation of DNA binding; positive regulation of protein complex assembly; regulation of protein localization; cellular protein metabolic process; protein sumoylation; positive regulation of proteasomal ubiquitin-dependent protein catabolic process; negative regulation of transcription, DNA-dependent Disease: Orofacial Cleft 10
Research Articles on SUMO1	**1.** our study demonstrated that SUMOylation on K166, the first described residue of SUMO-1 modification of ataxin-3, partially increased the stability of mutant-type ataxin-3, and the rate of apoptosis arisen from the cytotoxicity of the modified protein
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