Sentrin 1 (SUMO1) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Sentrin 1 (SUMO1), Polyclonal Antibody
Full Product Name	Sentrin 1, NT (Sentrin, GAP Modifying Protein 1, GMP1, PIC1, PIC-1, Small Ubiquitin-related Modifier 1, SUMO1, SUMO-1, SMT3, SMT3 Homolog 3, SMT3 Suppressor of Mif Two 3 Homolog 1, SMT3C, SMT3H3, Ubiquitin Homology Domain Protein PIC1, Ubiquitin-like 1, U
Product Gene Name	anti-SUMO1 antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Supplied as a liquid in PBS, pH 7.2. Labeled with R-Phycoerythrin (PE).
Purity/Purification	Purified by Immunoaffinity chromatography.
Specificity	Recognizes an epitope within the N-terminal region of human small ubiquitin-related modifier-1. Species Crossreactivity: rat, mouse.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: PE conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial 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	14aa peptide sequence near the amino terminus of human SUMO-1.
Conjugate	PE
Note	Preservative Free
Product Categories/Family for anti-SUMO1 antibody	Antibodies; Ubiquitin
Applications Tested/Suitable for anti-SUMO1 antibody	Western Blot (WB)
Application Notes for anti-SUMO1 antibody	WB: 0.5-1ug/ml Applications are based on unconjugated antibody.
Related Product Information for anti-SUMO1 antibody	MBS6498889 is an antibody targeting SUMO1. Also known as Sentrin 1, NT (Sentrin, GAP Modifying Protein 1, GMP1, PIC1, PIC-1, Small Ubiquitin-related Modifier 1, SUMO1, SUMO-1, SMT3, SMT3 Homolog 3, SMT3 Suppressor of Mif Two 3 Homolog 1, SMT3C, SMT3H3, Ubiquitin Homology Domain Protein PIC1, Ubiquitin-like 1, U. Reactive in Human, Mouse, Rat. Host: Rabbit.
Product References and Citations for anti-SUMO1 antibody	1. Melchior, F. and Hengst, L. (2002). SUMO-1 and p53. Cell Cycle. 1: 245-249. 2. Verger, A et al. (2003). Modification with SUMO. A role in transcriptional regulation. EMBO Rep. 4: 137-142.

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.

ADDITIONAL DETAILS

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

NCBI GI #	54792065
NCBI GeneID	7341
NCBI Accession #	NP_001005781.1
UniProt Primary Accession #	P63165
UniProt Secondary Accession #	P55856; Q6FGG0; Q6NZ62; Q93068; B2R4I5
UniProt Related Accession #	P63165
GenBank Nucleotide #	NM_001005781.1
NCBI Official Full Name	small ubiquitin-related modifier 1 isoform a
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
NCBI Summary for SUMO1	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. [provided by RefSeq, Jul 2008]

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: Nuclear receptor co-regulator; Ubiquitin-like modifier Chromosomal Location of Human Ortholog: 2q33 Cellular Component: nucleoplasm; PML body; nuclear membrane; cytoplasm; dendrite; fibrillar center; nucleolus; nuclear speck; synapse; nuclear pore; nucleus Molecular Function: protein binding; ubiquitin protein ligase binding; transcription factor binding; SUMO ligase activity Biological Process: negative regulation of transcription factor activity; cytokine and chemokine mediated signaling pathway; PML body organization and biogenesis; palate development; DNA repair; post-translational protein modification; negative regulation of DNA binding; positive regulation of protein complex assembly; protein sumoylation; regulation of protein localization; cellular protein metabolic process; positive regulation of proteasomal ubiquitin-dependent protein catabolic process; negative regulation of transcription, DNA-dependent Disease: Orofacial Cleft 10
Research Articles on SUMO1	**1.** Data suggest that SUMO1 and SUMO2/3 are highly enriched in neck area of sperm; SUMOs are also associated with redundant nuclear envelope, flagella, and some sperm head regions.
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