

Mouse anti-Human SUMO1 Monoclonal Antibody | anti-SUMO1 antibody

SUMO1 Antibody

CATALOG # AAA283573	HOST Mouse	REACTIVITY Human	APPLICATIONS ELISA, Western Blot
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PRODUCT SYNONYMS

SUMO1; Monoclonal Antibody; SUMO1 Antibody; Small ubiquitin-related modifier 1; SUMO-1; GAP-modifying protein 1; GMP1; SMT3 homolog 3; Sentrin; Ubiquitin-homology domain protein PIC1; Ubiquitin-like protein SMT3C; Smt3C; Ubiquitin-like protein UBL1; SMT3C; SMT3H3; UBL1; anti-SUMO1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Number	66AT1320
Specificity	Purified recombinant GST-SUMO1 protein was used as immunogen.
Purity/Purification	Purified Mouse Monoclonal Antibody (Mab)
Form/Format	Purified monoclonal 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.
Sequence Length	101
Applicable Applications for anti-SUMO1 antibody	ELISA, WB (Western Blot)
Function	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. Covalently attached to the voltage-gated potassium channel KCNB1; this modulates the gating characteristics of KCNB1 (PubMed:19223394). 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. Covalently attached to ZFH3 (PubMed:24651376).
Cellular Location	Nucleus membrane. Nucleus speckle. Cytoplasm. Nucleus, PML body. Cell membrane. Nucleus. Note=Recruited by BCL11A into the nuclear body. In the presence of ZFH3, sequestered to nuclear body (NB)-like dots in the nucleus some of which overlap or closely associate with PML body. {ECO:0000250 UniProtKB:P63166, ECO:0000269 PubMed:24651376}
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



WB (Western Blot)
The anti-SUMO1 monoclonal antibody is used in Western blot to detect SUMO1 in HL60 cell lysate.

ADDITIONAL INFORMATION

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.
Product Categories/Family for anti-SUMO1 antibody	Cardiovascular; Cell Biology; Metabolism
References	Association Between Polymorphisms at Small Ubiquitin-Like Modifier 1 and Nonsyndromic Orofacial Clefts in Western China. Jia ZL, et al. DNA Cell Biol, 2010 Aug 25. PMID 20738159. Maternal genes and facial clefts in offspring: a comprehensive search for genetic associations in two population-based cleft studies from Scandinavia. Jugessur A, et al. PLoS One, 2010 Jul 9. PMID 20634891. Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086. Association between genetic variants of reported candidate genes or regions and risk of cleft lip with or without cleft palate in the polish population. Mostowska A, et al. Birth Defects Res A Clin Mol Teratol, 2010 Jul. PMID 20544801. [Effect of SUMO-1 on mitochondria subcellular localization of alpha-synuclein and its degradation via ubiquitin-proteasome system] Chen T, et al. Zhonghua Yi Xue Yi Chuan Xue Za Zhi, 2010 Jun. PMID 20533263.

NCBI AND UNIPROT INFORMATION

NCBI GI #	54792065
NCBI GeneID	7341
NCBI Accession #	NP_001005781.1; NP_001005782.1; NP_003343.1
NCBI GenBank Nucleotide #	NM_001005781.1
UniProt Accession #	P63165; P55856; Q6FGG0; Q6NZ62; Q93068; A8MUS8; B2R4I5
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
NCBI Protein Information	small ubiquitin-related modifier 1
UniProt Protein Name	Small ubiquitin-related modifier 1
UniProt Gene Name	SUMO1
UniProt Synonym Gene Names	SMT3C; SMT3H3; UBL1; SUMO-1; GMP1; Smt3C
UniProt Entry Name	SUMO1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/monoclonal/sumo1-antibody-clone-66at1320-western-blot-elisa/283573>