SUMO2 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	SUMO2, Monoclonal Antibody
Full Product Name	SUMO2 (Small Ubiquitin-related Modifier 2, SUMO-2, HSMT3, SMT3 Homolog 2, SUMO-3, Sentrin-2, Ubiquitin-like Protein SMT3A, Smt3A, SMT3A, SMT3H2) (MaxLight 490)
Product Gene Name	anti-SUMO2 antibody
Clonality	Monoclonal
Isotype	IgG1,k
Clone Number	2H8
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human SUMO2.
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: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	~17.5 kDa
Chromosome Location	Chromosome: 17; NC_000017.10 (73163825..73179098, complement). Location: 17q25.1
OMIM	603042
3D Structure	ModBase 3D Structure for P61956
Immunogen	Full-length recombinant corresponding to aa1-96 from human SUMO2 (AAH08450) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	MADEKPKEGVKTENNNHINLKVAGQDGSVVQFKIKRHTPLSKLMKAYCERQGLSMRQIRFRFDGQPINETDTPAQLEMEDEDTIDVFQQQTGGVY*
Conjugate	MaxLight490
Product Categories/Family for anti-SUMO2 antibody	Antibodies; Ubiquitin
Applications Tested/Suitable for anti-SUMO2 antibody	FLISA, Immunohistochemistry (IHC) Paraffin, Western Blot (WB)
Application Notes for anti-SUMO2 antibody	IHC-P: 1.5ug/ml Applications are based on unconjugated antibody.

Related Product Information for anti-SUMO2 antibody	MBS6203608 is an antibody targeting SUMO2. Also known as SUMO2 (Small Ubiquitin-related Modifier 2, SUMO-2, HSMT3, SMT3 Homolog 2, SUMO-3, Sentrin-2, Ubiquitin-like Protein SMT3A, Smt3A, SMT3A, SMT3H2) (MaxLight 490). Reactive in Human. Host: Mouse.
Other Notes	Small volumes of anti-SUMO2 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 SUMO2. It may not necessarily be applicable to this product.

NCBI GI #	14250086
NCBI GeneID	6613
NCBI Accession #	BC008450
NCBI Related Accession #	AAH08450
UniProt Primary Accession #	P61956
UniProt Secondary Accession #	P55855; Q32Q42; Q6IPZ6; Q96HK1; B2R4I2
UniProt Related Accession #	P61956
NCBI Official Full Name	Homo sapiens SMT3 suppressor of mif two 3 homolog 2 (S. cerevisiae), mRNA
NCBI Official Synonym Full Names	small ubiquitin-like modifier 2
NCBI Official Symbol	SUMO2
NCBI Official Synonym Symbols	HSMT3; SMT3B; SUMO3; Smt3A; SMT3H2
UniProt Protein Name	Small ubiquitin-related modifier 2
UniProt Synonym Protein Names	HSMT3; SMT3 homolog 2; SUMO-3; Sentrin-2; Ubiquitin-like protein SMT3A
Protein Family	Small ubiquitin-related modifier
UniProt Gene Name	SUMO2
UniProt Synonym Gene Names	SMT3A; SMT3H2; SUMO-2; Smt3A
UniProt Entry Name	SUMO2_HUMAN
NCBI Protein Information	small ubiquitin-related modifier 2; sentrin 2; SMT3 homolog 2; ubiquitin-like protein SMT3A; ubiquitin-like protein SMT3B; SMT3 suppressor of mif two 3 homolog 2
NCBI Summary for SUMO2	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 two amino acids of the carboxy-terminus have been cleaved off. Numerous 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 SUMO2	SUMO2: 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 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. Polymeric SUMO2 chains are also susceptible to polyubiquitination which functions as a signal for proteasomal degradation of modified proteins. Homotrimer (Potential). Crystal packing analysis suggests a possible trimeric assembly, of which the biological significance remains to be determined. Interacts with SAE2 and UBE2I. Covalently attached to a number of proteins. Interacts with PELP1. Interacts with USP25; the interaction sumoylates USP25. Broadly expressed. Belongs to the ubiquitin family. SUMO subfamily. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Ubiquitin-like modifier Chromosomal Location of Human Ortholog: 17q25.1 Cellular Component: nucleoplasm; PML body; nucleus Molecular Function: protein binding; ubiquitin protein ligase binding Biological Process: cellular protein metabolic process; protein sumoylation; positive regulation of proteasomal ubiquitin-dependent protein catabolic process; post-translational protein modification
Research Articles on SUMO2	**1.** lysine 91, the major target of Nurr1 SUMOylation is contained in a canonical synergy control motif, indicating that SUMO-2 posttranslational modification of Nurr1 regulates its transcriptional synergy in complex promoters
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