

KD-Validated Anti-SUMO1 Mouse Monoclonal Antibody

Mouse monoclonal antibody

Catalog # AGI1997

Product Information

Application	WB, FC
Primary Accession	P63165
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Names	24GB7175
Calculated MW	11557
Gene Name	SUMO1
Aliases	SUMO1; Small Ubiquitin Like Modifier 1; SMT3H3; SMT3C; GMP1; SUMO-1; OFC10; PIC1; UBL1; Ubiquitin-Homology Domain Protein PIC1; Small Ubiquitin-Related Modifier 1; Ubiquitin-Like Protein SMT3C; Ubiquitin-Like Protein UBL1; SMT3 Homolog 3; Sentrin; SMT3 Suppressor Of Mif Two 3 Homolog 1 (S. Cerevisiae); SMT3 Suppressor Of Mif Two 3 Homolog 1 (Yeast); SMT3 Suppressor Of Mif Two 3 Homolog 1; Ubiquitin-Like 1 (Sentrin); GAP Modifying Protein 1; GAP-Modifying Protein 1; SENP2; Smt3C; DAP1; SMT3 Recombinant protein of human SUMO1
Immunogen	

Additional Information

Gene ID	7341
Other Names	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, SUMO1, SMT3C, SMT3H3, UBL1

Protein Information

Name	SUMO1
Synonyms	SMT3C, SMT3H3, UBL1
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 ZFX3 (PubMed:[24651376](#)).

Cellular Location

Nucleus membrane. Nucleus speckle {ECO:0000250|UniProtKB:P63166}. Cytoplasm. Nucleus, PML body. Cell membrane. Nucleus. Note=Recruited by BCL11A into the nuclear body (By similarity). In the presence of ZFX3, sequestered to nuclear body (NB)-like dots in the nucleus some of which overlap or closely associate with PML body (PubMed:24651376) {ECO:0000250|UniProtKB:P63166, ECO:0000269|PubMed:24651376}

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