

SUMO1 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP13711a**Specification**

SUMO1 Antibody (N-term) Blocking peptide - Product InformationPrimary Accession [P63165](#)**SUMO1 Antibody (N-term) Blocking peptide - 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

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP13711a was selected from the N-term region of SUMO1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SUMO1 Antibody (N-term) Blocking peptide - 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 ZFH3 (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 ZFH3, 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}

SUMO1 Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

SUMO1 Antibody (N-term) Blocking peptide - Images

SUMO1 Antibody (N-term) Blocking peptide - Background

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.

SUMO1 Antibody (N-term) Blocking peptide - References

Jia, Z.L., et al. DNA Cell Biol. 29(11):675-680(2010) Kang, X., et al. Oncogene 29(41):5568-5578(2010) Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Cox, B., et al. PLoS ONE 5 (8), E11996 (2010) :Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :