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Xenopus SUMO1 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP1284a

Specification

Xenopus SUMO1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession	O57686

Xenopus SUMO1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 399078

Other Names
Small ubiquitin-related modifier 1-A, SUMO-1-A, sumo1-a

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1284a was selected from the N-term region of human Xenopus 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.

Xenopus SUMO1 Antibody (N-term) Blocking Peptide - Protein Information

Name sumo1-a

Function
Ubiquitin-like protein that can be covalently attached to proteins as a monomer or a lysine-linked polymer (PubMed:9427648). 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. 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 sumo1 chains are also susceptible to polyubiquitination which functions as a signal for proteasomal degradation of modified proteins (By similarity).

Cellular Location
Nucleus membrane {ECO:0000250|UniProtKB:P63165}. Nucleus speckle {ECO:0000250|UniProtKB:P63166}. Cytoplasm {ECO:0000250|UniProtKB:P63165}. Nucleus, PML

body {ECO:0000250|UniProtKB:P63165}. Cell membrane {ECO:0000250|UniProtKB:P63165}. Nucleus {ECO:0000250|UniProtKB:P63165}

Xenopus SUMO1 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

Xenopus SUMO1 Antibody (N-term) Blocking Peptide - Images

Xenopus SUMO1 Antibody (N-term) Blocking Peptide - Background

Covalent attachment of one protein to another is one of the more prominent posttranslational modifications in respects to size and ubiquity ? to which eukaryotic proteins are subject. Ubiquitin is the most familiar of the protein modifiers and its activation and transfer to target proteins has been studied for over two decades. Recently a new group of ubiquitin-like (Ubl) proteins have come to light. One of the most intriguing of them is SUMO (small ubiquitin-like modifier, ~12kDa) also known as Sentrin. SUMO family has been described in vertebrates: SUMO-1 and the closest homologs SUMO-2 and SUMO-3. SUMO have been shown to bind and regulate mammalian SP-RINGs (such as Mdm2, PIAS and PML), RanGAP1, RanBP2, p53, p73, HIPK2, TEL, c-Jun, Fas, Daxx, TNFRI, Topo-I, Topo-II, WRN, Sp100, IkB-alpha, Androgen receptor (AR), GLUT1/4, Drosophila Ttk69, Dorsal, CaMK, yeast Septins, and viral CMV-IE1/2, EBV-BZLF1, HPV/BPV-E1. These bindings implicate SUMO in the stabilization of the target proteins and/or their localization to subcellular complexes. SUMO research enters now an exciting phase with a promise to help understanding how cells orchestrate the complexities of rapidly regulating protein level and activity.

Xenopus SUMO1 Antibody (N-term) Blocking Peptide - References

Muller S, et al., Nat Rev Mol Cell Biol. 2001 2(3):202-10 Review.Hochstrasser M. Cell. 2001 107(1):5-8. Review.Kahyo T, et al., Mol Cell. 2001 Sep;8(3):713-8.Yeh ET, et al., Gene. 2000 May 2;248(1-2):1-14. Review.Keane,M.M., et al., Oncogene 18 (22), 3365-3375 (1999)