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SUMO2/3 Antibody (C-term E69) Blocking Peptide

Synthetic peptide
Catalog # BP1223e

Specification

SUMO2/3 Antibody (C-term E69) Blocking Peptide - Product Information

Primary Accession P55854

SUMO2/3 Antibody (C-term E69) Blocking Peptide - Additional Information

Gene ID 6612

Other Names
Small ubiquitin-related modifier 3, SUMO-3, SMT3 homolog 1 {ECO:0000312|HGNC:HGNC:11124}, SUMO-2, Ubiquitin-like protein SMT3A, Smt3A, SUMO3 (HGNC:11124)

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1223e was selected from the C-term region of human SUMO2/3. 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.

SUMO2/3 Antibody (C-term E69) Blocking Peptide - Protein Information

Name SUMO3 (HGNC:11124)

Function
Ubiquitin-like protein which can be covalently attached to target lysines either as a monomer or as a lysine-linked polymer. Does not seem to be involved in protein degradation and may function as an antagonist of ubiquitin in the degradation process. Plays a role in a number of cellular processes such as nuclear transport, DNA replication and repair, mitosis and signal transduction. Covalent attachment 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 (PubMed:11451954, PubMed:18538659, PubMed:<a href="http://www.uniprot.org/citations/21965678"

target="_blank">21965678). Plays a role in the regulation of sumoylation status of SETX (PubMed:24105744).

Cellular Location
Cytoplasm. Nucleus. Nucleus, PML body

Tissue Location
Expressed predominantly in liver.

SUMO2/3 Antibody (C-term E69) Blocking Peptide - Protocols

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

- Blocking Peptides

SUMO2/3 Antibody (C-term E69) Blocking Peptide - Images

SUMO2/3 Antibody (C-term E69) Blocking Peptide - Background

SUMO2 and SUMO3 are members of the SUMO (small ubiquitin-like modifier) protein family. This protein family 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. In vertebrates, three members of the SUMO family have been described, SUMO 1 and the functionally distinct homologues SUMO 2 and SUMO 3. SUMO modification sites present in the N terminal regions of SUMO 2 and SUMO 3 are utilized by SAE1/SAE2 (SUMO E1) and Ubc9 (SUMO E2) to form polymeric chains of SUMO 2 and SUMO 3 on protein substrates, a property not shared by SUMO 1.

SUMO2/3 Antibody (C-term E69) Blocking Peptide - References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).Lapenta, V., et al., Genomics 40(2):362-366 (1997).Mannen, H., et al., Biochem. Biophys. Res. Commun. 222(1):178-180 (1996).