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SUMO-2/3 Antibody - With BSA and Azide
Mouse Monoclonal Antibody [Clone SPM572]
Catalog # AH10741

Specification

SUMO-2/3 Antibody - With BSA and Azide - Product Information

Application	**WB, IHC-P, IF, FC**
Primary Accession	P61956
Other Accession	6613 (SUMO-2), 6612 (SUMO-3), SUMO2, SUMO3, P55854
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG1, kappa**
Calculated MW	**11-13kDa KDa**

SUMO-2/3 Antibody - With BSA and Azide - Additional Information

Gene ID 6613

Other Names
Small ubiquitin-related modifier 2, SUMO-2, HSMT3, SMT3 homolog 2 {ECO:0000312|HGNC:HGNC:11125}, SUMO-3, Sentrin-2, Ubiquitin-like protein SMT3B, Smt3B, SUMO2 (HGNC:11125)

Application Note
WB~~1:1000<br \>IHC-P~~N/A<br \>IF~~1:50~200<br \>FC~~1:10~50

Format
200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
SUMO-2/3 Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

SUMO-2/3 Antibody - With BSA and Azide - Protein Information

Name SUMO2 (HGNC:11125)

Function
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, CBX4 or ZNF451 (PubMed:26524494). 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 (PubMed:18408734, PubMed:18538659, PubMed:21965678, PubMed:9556629). Plays a role in the regulation of sumoylation status of SETX (PubMed:24105744).

Cellular Location
Nucleus. Nucleus, PML body.

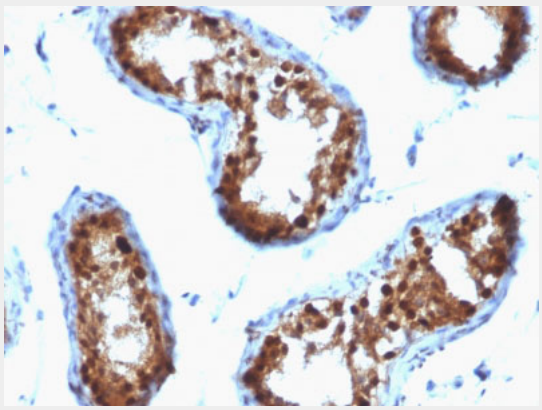
Tissue Location
Broadly expressed..

SUMO-2/3 Antibody - With BSA and Azide - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SUMO-2/3 Antibody - With BSA and Azide - Images



Formalin-fixed, paraffin-embedded human Testicular Carcinoma stained with SUMO-2 Monoclonal Antibody (SPM572)

SUMO-2/3 Antibody - With BSA and Azide - Background

This MAb reacts with both SUMO-2 and SUMO-3. The small ubiquitin-related modifier (SUMO)

proteins, which include SUMO-1, 2 and 3, belong to the ubiquitin-like protein family. Like ubiquitin, the SUMO proteins are synthesized as precursor proteins that undergo processing before conjugation to target proteins. Also, both utilize the E1, E2 and E3 cascade enzymes for conjugation. However, SUMO and ubiquitin differ with respect to targeting. Ubiquitination predominantly targets proteins for degradation, whereas sumoylation targets proteins to a variety of cellular processing, including nuclear transport, transcriptional regulation, apoptosis and protein stability. The unconjugated SUMO-1, 2 and 3 proteins localize to the nuclear membrane, nuclear bodies and cytoplasm, respectively. SUMO-1 utilizes Ubc9 for conjugation to several target proteins, which include MDM2, p53, PML and RanGap1. SUMO-2 and 3 contribute to a greater percentage of protein modification than does SUMO-1 and unlike SUMO-1, they can form polymeric chains. In addition, SUMO-3 regulates beta-Amyloid generation and may be critical in the onset or progression of Alzheimer s disease.