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SUMO2/3 Antibody
Catalog # ASC11130

Specification

SUMO2/3 Antibody - Product Information

Application	**IF**
Primary Accession	P61956
Other Accession	AAH71645, 6613
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**SUMO2/3 antibody can be used for detection of SUMO2 and SUMO3 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.**

SUMO2/3 Antibody - Additional Information

Gene ID **6613**

Target/Specificity
SUMO2/3 antibody was raised against a 15 amino acid synthetic peptide near the carboxy terminus of human SUMO2.

The immunogen is located within the last 50 amino acids of SUMO2/3.

Reconstitution & Storage
SUMO2/3 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
SUMO2/3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SUMO2/3 Antibody - 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.

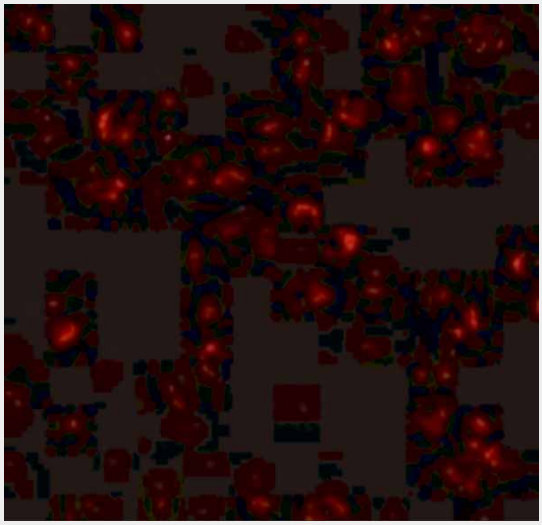
Tissue Location
Broadly expressed..

SUMO2/3 Antibody - 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

SUMO2/3 Antibody - Images



Immunofluorescence of IL-23 in Raji cells with IL-23 antibody at 20 µg/mL.

SUMO2/3 Antibody - Background

SUMO2/3 Antibody: Small ubiquitin-like modifiers (SUMOs) are a family of small, related proteins (Sumo-1/2/3/4) that can be enzymatically attached to a target protein by a post-translational modification process termed sumoylation, which is a major regulator of protein function in cellular processes such as nuclear transport, transcriptional regulation, apoptosis and protein stability. All SUMO proteins localize to the nucleus and are covalently conjugated, affecting protein structure,

function and interactions. SUMO2 and 3 are 96% identical and are more mobile within nucleus relative to SUMO1. Specific functional differences between SUMO1 and SUMO2 and 3 remain to be identified.

SUMO2/3 Antibody - References

Kamitani T, Kito K, Nguyen HP, et al. Characterization of a second member of the sentrin family of ubiquitin-like proteins. J. Biol. Chem.1998;273:11349-53.
Kim KI, Baek SH, and Chung CH. Versatile protein tag, SUMO: its enzymology and biological function. J. Cell. Physiol.2002; 191: 257-68.
Su H and Li SS. Molecular features of human ubiquitin-like SUMO genes and their encoded proteins. Gene2002; 296: 65.
Saitoh H and Hinchey J. Functional heterogeneity of small ubiquitin-related protein modifiers SUMO-1 versus SUMO-2/3. J. Biol. Chem.2000; 275:6252-8.