

Rabbit Sumo 1/SUMO1 Polyclonal Antibody | anti-SUMO1 antibody

Anti-Sumo 1/SUMO1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19224	Rabbit	Human, Mouse, Rat	Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

Sumo 1/SUMO1; Polyclonal Antibody; Anti-Sumo 1/SUMO1 Antibody; SUMO1; SMT3C; SMT3H3; UBL1; OK/SW-cl. 43; 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; small ubiquitin-like modifier 1; anti-SUMO1 antibody

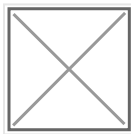
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for Sumo 1/SUMO1 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.005mg NaN3.
Applicable Applications for anti-SUMO1 antibody	IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry)
Application Notes	IHC-P: 1-2ug/ml Human, Mouse, Rat ICC/IF: 5ug/ml Human FC/FACS/FCM: 1-3ug/1x106 cells Mouse
Immunogen	A synthetic peptide corresponding to a sequence of human Sumo 1/SUMO1 (HLKKLKESYCQRQGVPMNSLRFLFEGQRIADNHTPKEL).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



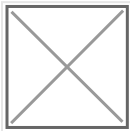
FCM (Flow Cytometry)

Figure 7. Flow Cytometry analysis of HL-60 cells using anti-Sumo 1/SUMO1 antibody (AAA19224). Overlay histogram showing HL-60 cells stained with AAA19224 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Sumo 1/SUMO1 Antibody (AAA19224, 1μg/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



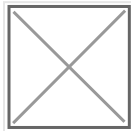
IF (Immunofluorescence)

Figure 6. IF analysis of Sumo 1/SUMO1 using anti-Sumo 1/SUMO1 antibody (AAA19224). Sumo 1/SUMO1 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5μg/mL rabbit anti-Sumo 1/SUMO1 Antibody (AAA19224) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC (Immunohistochemistry)

Figure 5. IHC analysis of Sumo 1/SUMO1 using anti-Sumo 1/SUMO1 antibody (AAA19224). Sumo 1/SUMO1 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-Sumo 1/SUMO1 Antibody (AAA19224) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



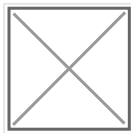
IHC (Immunohistochemistry)

Figure 4. IHC analysis of Sumo 1/SUMO1 using anti-Sumo 1/SUMO1 antibody (AAA19224). Sumo 1/SUMO1 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-Sumo 1/SUMO1 Antibody (AAA19224) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 3. IHC analysis of Sumo 1/SUMO1 using anti-Sumo 1/SUMO1 antibody (AAA19224). Sumo 1/SUMO1 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-Sumo 1/SUMO1 Antibody (AAA19224) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 2. IHC analysis of Sumo 1/SUMO1 using anti-Sumo 1/SUMO1 antibody (AAA19224). Sumo 1/SUMO1 was detected in paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-Sumo 1/SUMO1 Antibody (AAA19224) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).

ADDITIONAL INFORMATION

Related Product Information for anti-SUMO1 antibody	Small ubiquitin-related modifier 1(SUMO1), also called SMT3C or PIC1 is a protein that in humans is encoded by the SUMO1 gene. This gene is mapped to 2q33. 1. 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.
References	1. Alkuraya, F. S., Saadi, I., Lund, J. L., Turbe-Doan, A., Morton, C. C., Maas, R. L. SUMO1 haploinsufficiency leads to cleft lip and palate. Science 313: 1751 only, 2006. 2. Kho, C., Lee, A., Jeong, D., Oh, J. G., Chaanine, A. H., Kizana, E., Park, W. J., Hajjar, R. J. SUMO1-dependent modulation of SERCA2a in heart failure. Nature 477: 601-605, 2011. 3. Martin, S., Nishimune, A., Mellor, J. R., Henley, J. M. SUMOylation regulates kainate-receptor-mediated synaptic transmission. Nature 447: 321-325, 2007.

NCBI AND UNIPROT INFORMATION

NCBI GI #	54792065
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NCBI GeneID	7341
NCBI Accession #	NP_001005781.1
NCBI GenBank Nucleotide #	NM_001005781.1
UniProt Accession #	P63165; P55856; Q6FGG0; Q6NZ62; Q93068; B2R4I5
Molecular Weight	11,557 Da
NCBI Official Full Name	small ubiquitin-related modifier 1 isoform a
NCBI Official Synonym Full Names	small ubiquitin-like modifier 1
NCBI Official Symbol	SUMO1
NCBI Official Synonym Symbols	DAP1; GMP1; PIC1; SMT3; UBL1; OFC10; SENP2; SMT3C; SMT3H3
NCBI Protein Information	small ubiquitin-related modifier 1; sentrin; SMT3 homolog 3; GAP modifying protein 1; ubiquitin-like protein UBL1; ubiquitin-like protein SMT3C; SMT3 suppressor of mif two 3 homolog 1; ubiquitin-homology domain protein PIC1
UniProt Protein Name	Small ubiquitin-related modifier 1
UniProt Gene Name	SUMO1
UniProt Synonym Gene Names	SMT3C; SMT3H3; UBL1; SUMO-1; GMP1; Smt3C
UniProt Entry Name	SUMO1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/sumo-1-sumo1-antibody-immunohistochemistry-immunocytochemistry-immunofluorescence-flow-cytometry-elisa/19224>