

Anti-Sumo 1/SUMO1 Antibody

Catalog Number: A00631-1

About SUMO1

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.

Overview

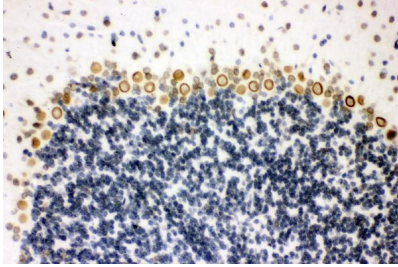
Product Name	Anti-Sumo 1/SUMO1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Sumo 1/SUMO1 Antibody catalog # A00631-1. Tested in Flow Cytometry, IF, IHC, ICC applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.005mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P63165

Technical Details

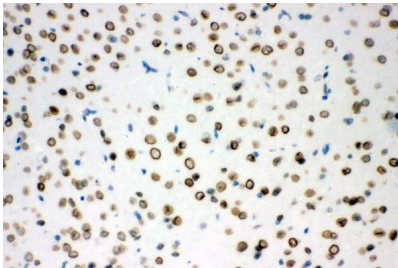
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Sumo 1/SUMO1, identical to the related mouse and rat sequences.
Recommended Detection Systems	Boster recommends HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry (Paraffin-embedded Section), 1-2ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human, Mouse

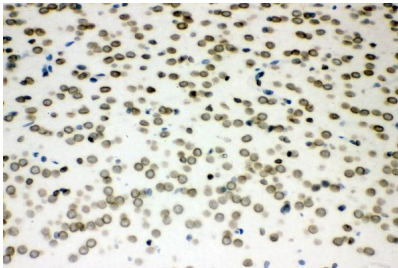
Anti-Sumo 1/SUMO1 Antibody (A00631-1) Images



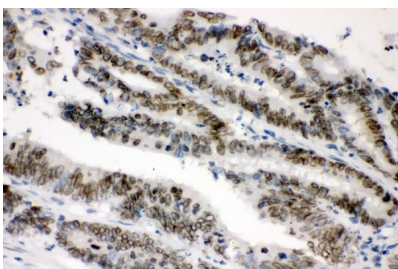
IHC analysis of Sumo 1/SUMO1 using anti-Sumo 1/SUMO1 antibody (A00631-1). Sumo 1/SUMO1 was detected in paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Sumo 1/SUMO1 Antibody (A00631-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



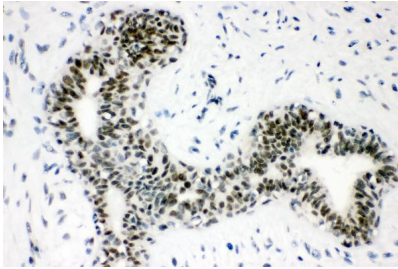
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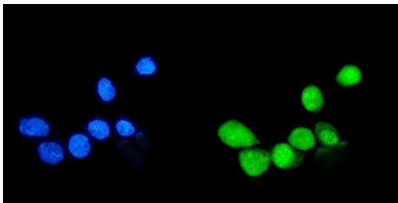
IHC analysis of Sumo 1/SUMO1 using anti-Sumo 1/SUMO1 antibody (A00631-1). Sumo 1/SUMO1 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Sumo 1/SUMO1 Antibody (A00631-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



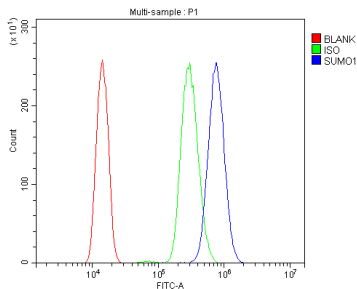
IHC analysis of Sumo 1/SUMO1 using anti-Sumo 1/SUMO1 antibody (A00631-1). Sumo 1/SUMO1 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Sumo 1/SUMO1 Antibody (A00631-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



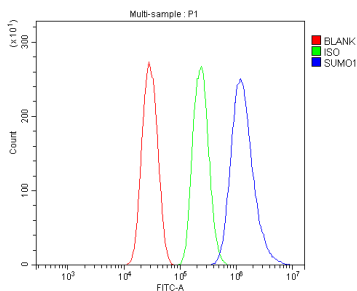
IHC analysis of Sumo 1/SUMO1 using anti-Sumo 1/SUMO1 antibody (A00631-1). Sumo 1/SUMO1 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Sumo 1/SUMO1 Antibody (A00631-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IF analysis of Sumo 1/SUMO1 using anti-Sumo 1/SUMO1 antibody (A00631-1). Sumo 1/SUMO1 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-Sumo 1/SUMO1 Antibody (A00631-1) overnight at 4°C. DyLight@488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of HL-60 cells using anti-Sumo 1/SUMO1 antibody (A00631-1). Overlay histogram showing HL-60 cells stained with A00631-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Sumo 1/SUMO1 Antibody (A00631-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight@488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Flow Cytometry analysis of HEPA1-6 cells using anti-Sumo 1/SUMO1 antibody (A00631-1). Overlay histogram showing HEPA1-6 cells stained with A00631-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Sumo 1/SUMO1 Antibody (A00631-1, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight@488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody

and secondary antibody (Red line) was used as a blank control.

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Anti-Sumo 1/SUMO1 Antibody

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