Human SUMO 2/3 antibody

Catalog Number: ATGA0547

PRODUCT INFORMATION

Catalog number
ATGA0547

Clone No.
AT10F1

Product type
Monoclonal antibody

UnitProt No.
P61956

NCBI Accession No.
NP_008868

Alternative Names
ubiquitin like protein SMT3B.Small ubiquitin-related modifier 3, SuMO3, SuMO2, SMT3H2, SMT3H1, SMT3B, SMT3A, SMT3 suppressor of mif two 3 homolog 2, SMT3 homolog 2, SMT 3B, Small ubiquitin-related modifier 2 SMT3 suppressor of mif two 3 homolog 2 (S. cerevisiae), Small ubiquitin related modifier 2, Small ubiquitin like modifier 2, Sentrin2, MGC117191, HSMT3

Additional Information
This product was produced from tissue culture supernatant.

PRODUCT SPECIFICATION

Antibody Host
Mouse

Reacts With
Human

Concentration
1mg/ml (determined by BCA assay)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen
Recombinant human SUMO2 (1-93aa) purified from E.coli

Isotype
IgG2b kappa

Purification Note
By protein-A affinity chromatography

Application
ELISA, WB, ICC/IF, FACS

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Usage

The antibody has been tested by ELISA, Western blot, ICC/IF and FACS analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

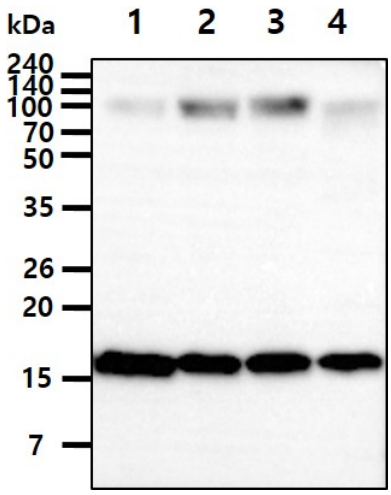
SUMO (small ubiquitin-related modifier) is the best-characterized member of a growing family ofubiquitin-related proteins. 8-11 kDa that covalently modify various intracellular proteins. It resemblesubiquitin in its structure, its ability to be ligated to other proteins. SUMO regulates cellular function of avariety of target proteins. SUMO proteins are expressed as their precursor forms. Cleavage of the residuesafter the GG region of these precursors by SUMO-specific proteases in maturation is a prerequisite forsubsequent sumoylation. Notably, SUMO2 and SUMO3 precursors have 96% sequence identity, and recentstudies have shown protein substrates conjugated with SUMO2 or SUMO3 have similar, if not identical,biological consequences.

General References

Tatsuya Ii, et al. (2007) DNA Repair (Amst), 6(11): 1679-1691.
Zheng Xu, et al. (2005) Biochem J, 386(Pt 2): 325-330.
Melchior F. (2000) Annu Rev Cell Dev Biol, 16: 591-626.

DATA

Western blot analysis (WB)



The cell lysates(40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human SUMO/3 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: HeLa cell lysate
Lane 2.: Jurkat cell lysate
Lane 3.: K562 cell lysate
Lane 4.: HL-60 cell lysate

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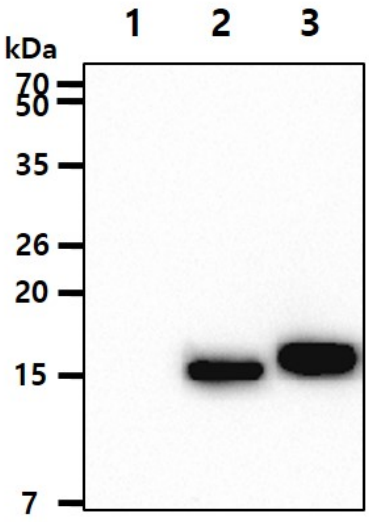
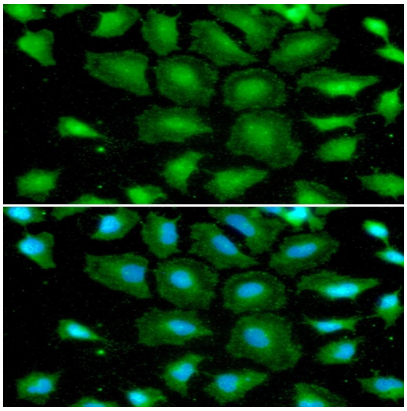


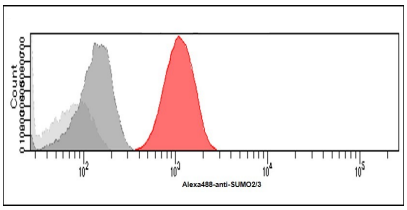
The recombinant proteins (10ng) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human SUMO2/3 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: Recombinant human SUMO1 protein
Lane 2.: Recombinant human SUMO2 protein
Lane 3.: Recombinant human SUMO3 protein

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of SUMO2/3 in HeLa cells. The cell was stained with ATGA0547 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

Flow cytometry (FACS)



Flow cytometry analysis of SUMO2/3 in Jurkat cells. The cell was stained with ATGA0547 at 2-5ug for 1x10^6cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).