

Human SUMO 2/3 antibody

Catalog Number: ATGA0184

PRODUCT INFORMATION

Catalog number

ATGA0184

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

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-G affinity chromatography

Application

ELISA, WB, ICC/IF, IHC, FACS

Usage

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

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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

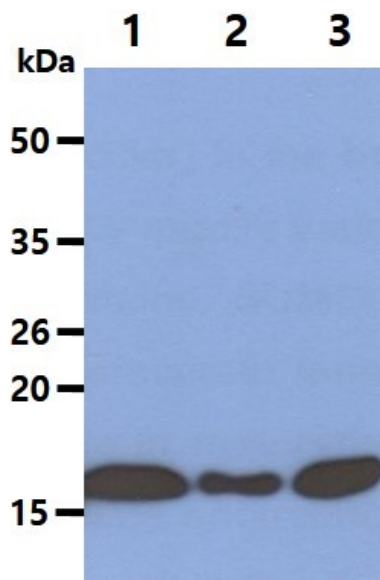
SUMO (small ubiquitin-related modifier) is the best-characterized member of a growing family of ubiquitin-related proteins. 8-11 kDa that covalently modify various intracellular proteins. It resembles ubiquitin in its structure, its ability to be ligated to other proteins. SUMO regulates cellular function of a variety of target proteins. SUMO proteins are expressed as their precursor forms. Cleavage of the residues after the GG region of these precursors by SUMO-specific proteases in maturation is a prerequisite for subsequent sumoylation. Notably, SUMO2 and SUMO3 precursors have 96% sequence identity, and recent studies 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)

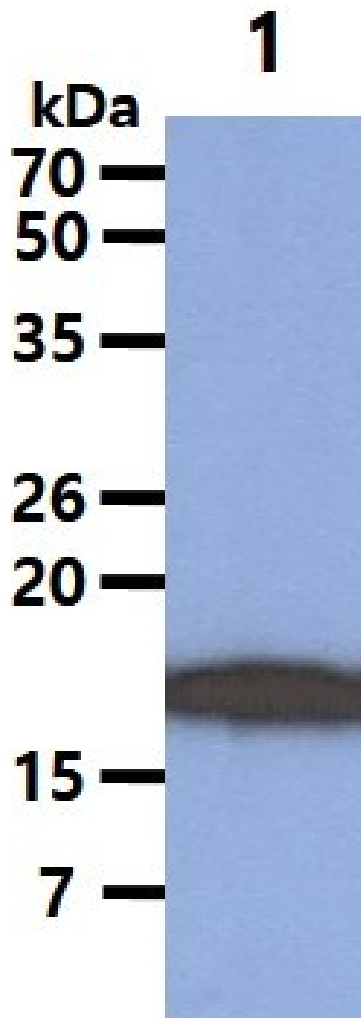


The cell lysates(40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human SUMO2/3 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

- Lane 1.: HeLa cell lysate
- Lane 2.: Jurkat cell lysate
- Lane 3.: K562 cell lysate

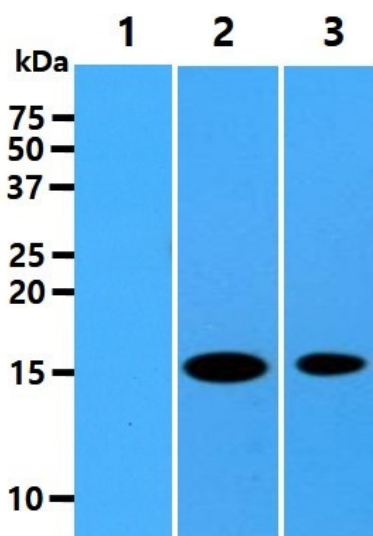
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Lane 1.: HL-60 cell lysate



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

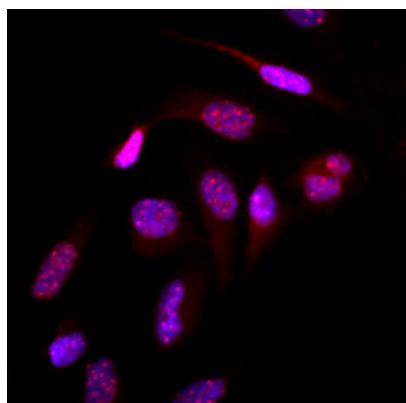
Lane 2.: Recombinant human SUMO2 protein

Lane 3.: Recombinant human SUMO3 protein

Immunocytochemistry/Immunofluorescence (ICC/IF)

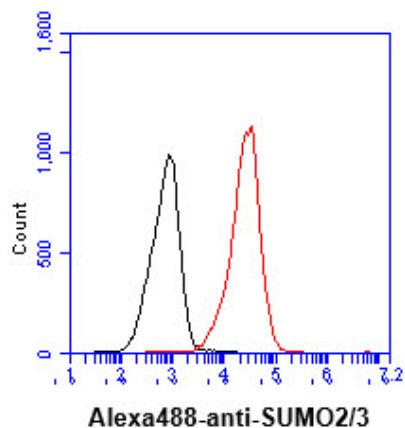
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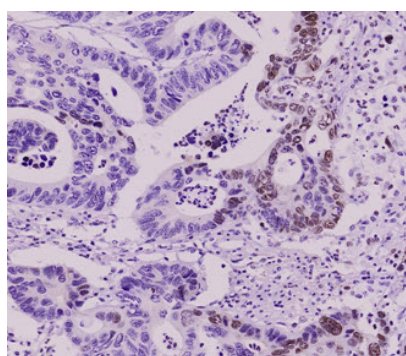
Immunofluorescence of human HeLa cells stained with Hoechst 3342 (Blue) for nucleus staining and monoclonal anti-human SUMO2/3 antibody (1:500) with Texas Red (Red).

Flow cytometry (FACS)



Flow cytometry analysis of SUMO2/3 in jurkat cell line, staining at 2-5ug for 1×10^6 cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).

Immunohistochemistry (IHC)



Paraffin embedded sections of colorectal cancer tissue were incubated with anti-human SUMO2/3 antibody (1:50) for 2 hours at room temperature. Antigen retrieval was performed in 0.1M sodium citrate buffer and detected using Diaminobenzidine (DAB).