Data Sheet (Cat.No.TMAC-03915)

Anti-SUMO4 Antibody (4W157)

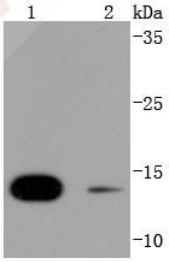
Product Details

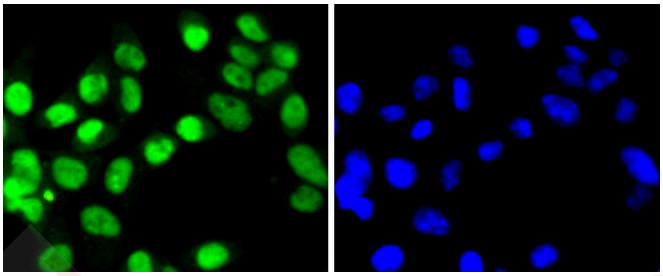
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 11 kDa.
Clone:	4W157
Purification:	ProA affinity purified

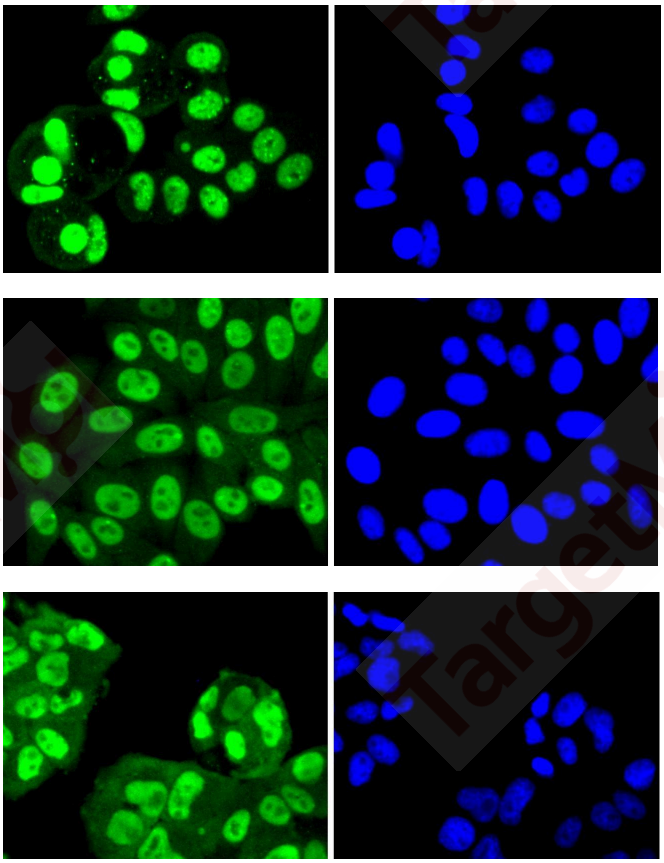
Applications

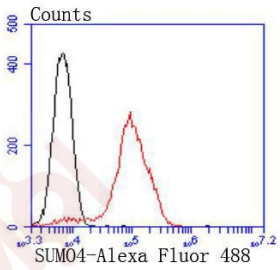
Verified Activity:

1. Western blot analysis of SUMO4 on different lysates using anti-SUMO4 antibody at 1/1,000 dilution. Positive control: Lane 1: 293T, Lane 2: Jurkat.
2. ICC staining SUMO4 in 293 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
3. ICC staining SUMO4 in MCF-7 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
4. ICC staining SUMO4 in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
5. ICC staining SUMO4 in RH-35 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
6. Flow cytometric analysis of 293 cells with SUMO4 antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.









Application: FCM,ICC/IF,IP,WB

Recommended: WB: 1:1000-2000; ICC/IF: 1:100-500; FCM: 1:50-100

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: Q6EEV6

Synonyms: SUMO4_HUMAN;Small ubiquitin-related modifier 4;SMT3 suppressor of mif two 3 homolog 2; dJ281H8.4;SUMO 4;SMT3H4;SMT3 suppressor of mif two 3 homolog 4 (S. cerevisiae);Small ubiquitin-like protein 4;Small ubiquitin like modifier 4 protein;IDDM5

Research Background

The small ubiquitin-related modifier (SUMO) proteins, which include SUMO-1, SUMO-2, SUMO-3 and SUMO-4, belong to the ubiquitin-like protein family. Like ubiquitin, the SUMO proteins are synthesized as precursor proteins that undergo processing before conjugation to target proteins. Ubiquitin and SUMO proteins utilize the E1, E2 and E3

cascade enzymes for conjugation. However, SUMO and ubiquitin differ with respect to targeting. Ubiquitination predominantly targets proteins for degradation, whereas sumoylation targets proteins for a variety of cellular processing, including nuclear transport, transcriptional regulation, apoptosis and protein stability. The unconjugated SUMO-1, SUMO-2, SUMO-3 and SUMO-4 proteins localize to the nucleus. In contrast to the other SUMO proteins, SUMO-4 seems to be insensitive to sentrin-specific proteases due to the presence of Pro-90, which may impair processing to mature form and conjugation to substrates. It is suggested that defects in the gene that encodes for the SUMO-4 protein may be involved in the pathogenesis of type I diabetes.

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