

href="http://www.uniprot.org/citations/34048572" target="_blank">34048572, PubMed:37257451). The first is the hydrolysis of an alpha-linked peptide bond at the C-terminal end of the small ubiquitin-like modifier (SUMO) propeptides, SUMO1, SUMO2 and SUMO3 leading to the mature form of the proteins (PubMed:15487983). The second is the deconjugation of SUMO1, SUMO2 and SUMO3 from targeted proteins, by cleaving an epsilon-linked peptide bond between the C-terminal glycine of the mature SUMO and the lysine epsilon-amino group of the target protein (PubMed:15199155, PubMed:16253240, PubMed:21829689, PubMed:21965678, PubMed:23160374, PubMed:24943844, PubMed:25406032, PubMed:29506078, PubMed:34048572, PubMed:37257451). Deconjugates SUMO1 from HIPK2 (PubMed:16253240). Deconjugates SUMO1 from HDAC1 and BHLHE40/DEC1, which decreases its transcriptional repression activity (PubMed:15199155, PubMed:21829689). Deconjugates SUMO1 from CLOCK, which decreases its transcriptional activation activity (PubMed:23160374). Deconjugates SUMO2 from MTA1 (PubMed:21965678). Inhibits N(6)-methyladenosine (m6A) RNA methylation by mediating SUMO1 deconjugation from METTL3 and ALKBH5: METTL3 inhibits the m6A RNA methyltransferase activity, while ALKBH5 desumoylation promotes m6A demethylation (PubMed:29506078, PubMed:34048572, PubMed:37257451). Desumoylates CCAR2 which decreases its interaction with SIRT1 (PubMed:25406032). Deconjugates SUMO1 from GPS2 (PubMed:24943844).

Cellular Location

Nucleus. Cytoplasm Note=Shuttles between cytoplasm and nucleus

Tissue Location

Highly expressed in testis. Expressed at lower levels in thymus, pancreas, spleen, liver, ovary and small intestine

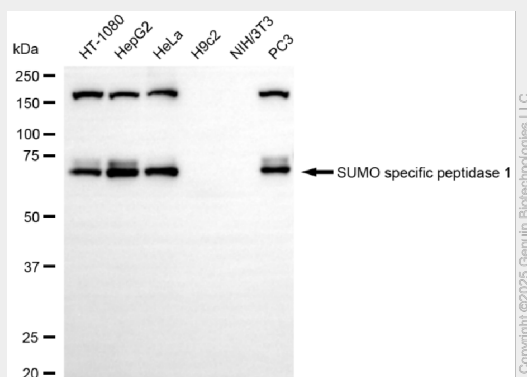
KD-Validated Anti-SUMO Specific Peptidase 1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

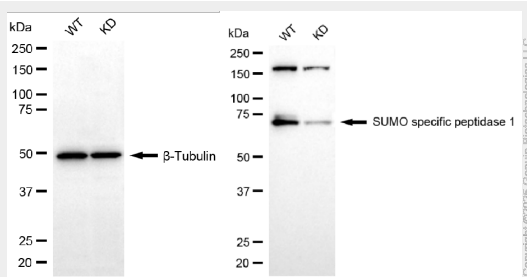
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

• [Cell Culture](#)

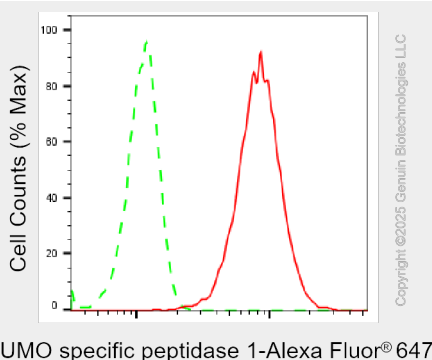
KD-Validated Anti-SUMO Specific Peptidase 1 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-SUMO specific peptidase 1 antibody (Cat#AGI1432). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-SUMO specific peptidase 1 antibody (Cat#AGI1432, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-SUMO specific peptidase 1 antibody (Cat#AGI1432). SUMO specific peptidase 1 expression in wild-type (WT) and SUMO specific peptidase 1 (SEN1) knockdown (KD) HSHC cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-SUMO specific peptidase 1 antibody (Cat#AGI1432, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



SUMO specific peptidase 1-Alexa Fluor® 647

Flow cytometric analysis of SUMO specific peptidase 1 expression in HepG2 cells using anti-SUMO specific peptidase 1 antibody (Cat#AGI1432, 1:2,000). Green, isotype control; red, SUMO specific peptidase 1.