

His₆-SEN1, human recombinant

Cat. No. SBB-DE0026
Lot. No. 163060026

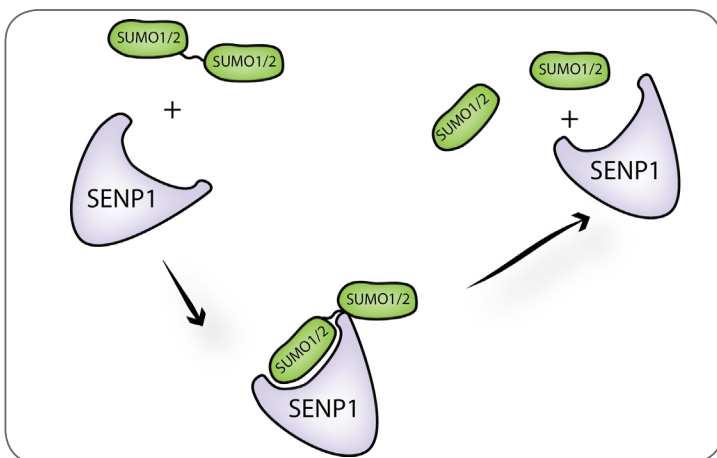


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His₆-SEN1

SUMO/Sentrin Specific Peptidase 1 (SEN1) is a member of the SENP family of proteases, which belong to the group of cysteine-type peptidases that either catalyze the mature form of full-length Small Ubiquitinrelated MOdifiers (SUMOs), or the deconjugation of SUMOs from SUMOylated proteins, specifically SUMO2/3 chains by removing the distal SUMO1. SENP1 is expressed in many organs and is localized in the nucleus as well as the cytoplasm. SENP1 is thought to play a role in the development, progression, and metastasis of prostate cancer and has been shown to regulate erythropoietin production during hypoxia by regulating the stability of HIF1 α . Furthermore, SENP1 deconjugates SUMO1 from HIPK2, from HDAC1, and BHLHE40/DEC1, which decreases its transcriptional repression activity. SENP1 has been shown to desumoylate CCAR2, which subsequently decreases the interaction with SIRT1.

Purified recombinant human Sentrin Specific Protease 1 (SEN1, catalytic domain) is a SUMO-specific enzyme that catalyzes two essential functions. Processing the full-length versions of SUMO1, SUMO2, and SUMO3 into its mature forms and the deconjugation of SUMOylated proteins. This SENP1 is N-terminally His₆ tagged and expressed in *E.coli*.



Product Information

Quantity: 50 μ g **Molecular Weight:** 31.5 kDa

Concentration: 25 μ M, 0.78mg/mL

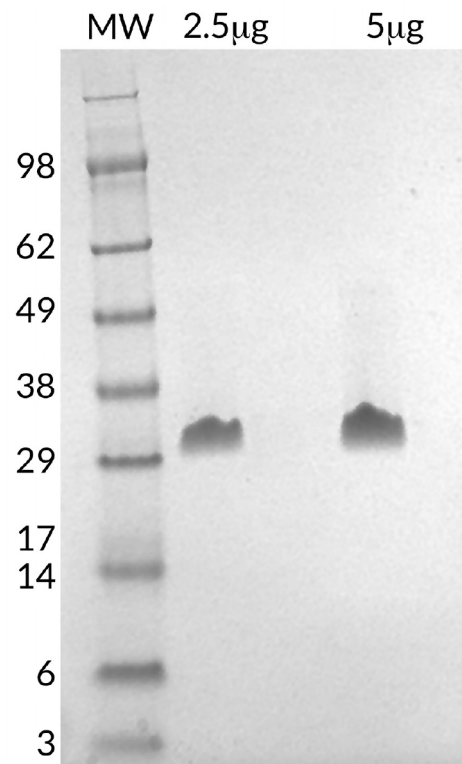
Purity: >95% by SDS-PAGE

Storage Buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 1 mM TCEP

Storage: -80C, Avoid multiple freeze / thaw

Usage: Working concentrations of this enzyme range from 1 to 10 nM.

Quality Control and Performance Data



His₆-SEN1 SDS-PAGE. From left to right, increasing amounts of His₆-SEN1 loaded onto a 4-20% SDS-PAGE gel, stained with coomassie brilliant blue. Purity is > 95%.

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References

- 1) Bailey, D. and P. O'Hare. "Characterization Of The Localization And Proteolytic Activity Of The SUMO-Specific Protease, SENP1". *Journal of Biological Chemistry* 279.1 (2003): 692-703. Web.
 - 2) Kim, Young Ho et al. "Desumoylation Of Homeodomain-Interacting Protein Kinase 2 (HIPK2) Through The Cytoplasmic-Nuclear Shuttling Of The SUMO-Specific Protease SENP1". *FEBS Letters* 579.27 (2005): 6272-6278. Web. 8 Mar. 2017.
 - 3) Scherer, Steven E. et al. "The Finished DNA Sequence Of Human Chromosome 12". *Nature* 440.7082 (2006): 346-351. Web. 8 Mar. 2017.
 - 4) Sung, Ki Sa et al. "Differential Interactions Of The Homeodomain-Interacting Protein Kinase 2 (HIPK2) By Phosphorylation-Dependent Sumoylation". *FEBS Letters* 579.14 (2005): 3001-3008. Web. 8 Mar. 2017.
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