

## SUMO-Specific Protease 2 (SEN2)

Catalog Number	LDG0015RG
Package	100 µg / 1 mg / Customized package

For full product information, images and publications, please visit [our website](#).



### Overview

#### Description

SEN2 is an enzyme that belongs to the protease family C48. Structurally, SEN2 harbors the C48 catalytic domain which is typically located close to the C terminus and has been reported to engage two SUMO pathways. The first is cleavage processing of small ubiquitin-like modifiers (SUMO1, SUMO2, and SUMO3) propeptides, subsequently leading to protein maturation. The second is the cleavage processing of SUMO1, SUMO2, and SUMO3 from targeted proteins. SEN2 protease has a His-tag for easy removal from a cleavage reaction by using nickel affinity resins.

#### Product Note

- Procedure:
  1. To optimize cleavage conditions, it is recommended to run preliminary cleavage reactions at a small scale.
  2. Dilute the target protein sample to 1-2 mg/mL with PBS solution.
  3. An effective general range of the SEN2 protease: target protein ratio is 1 µg :50 µg.
  4. Reaction can be performed at 4°C-37°C. 4°C is recommended as the starting standard. Incubate the reaction mixture at 4°C for 16 hours.
  5. Determine cleavage level of the samples by SDS-PAGE analysis.
  6. Once optimize for the cleavage condition, the cleavage reactions can be scaled up to cleave a large amount of the target fusion protein.
- SEN2 protease: target protein ratio of 1 µg :50 µg is used for most fusion protein cleavage. Cleavage efficiency may differ based on structure and properties of each target protein, we recommend testing several enzyme-to-substrate ratios, temperatures, and incubation times.
- We recommend performing longer cleavage time at lower temperatures (4°C) for cleavage efficiency.

### Specifications

#### Tainan Headquarter

+886-6-2536677

bd@leadgene.com.tw

#### Innovation & Research Center

+886-2-27065528

#### CLD Center

+886-6-2536677

**Expression system**

Escherichia coli

**Buffer**

55mM Tris-HCl, 165 mM NaCl, pH7.5

**Purity**

>95% as determined by SDS-PAGE analysis.

**Endotoxin level**

<1 EU per 1 µg of the protein by the LAL method.

**Form**

Liquid

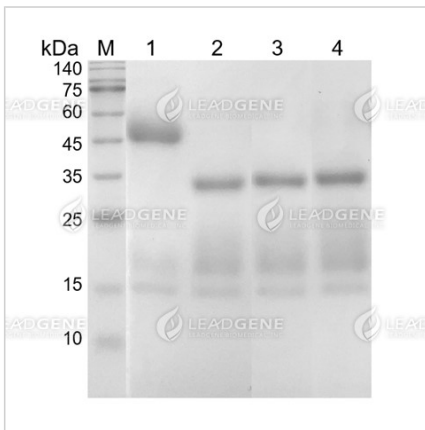
**Instruction**
**Shipping**

The product is shipped with polar packs. Upon receipt, store it immediately at -20°C or lower for long term storage.

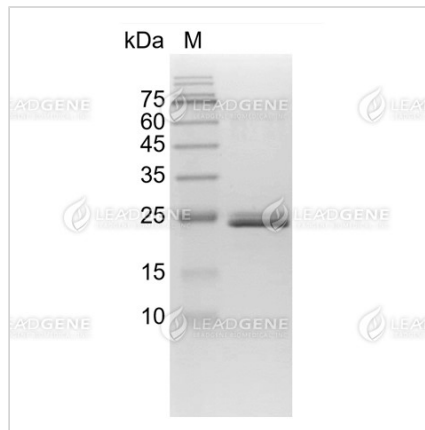
**Stability & Storage**

This product is stable after storage at:

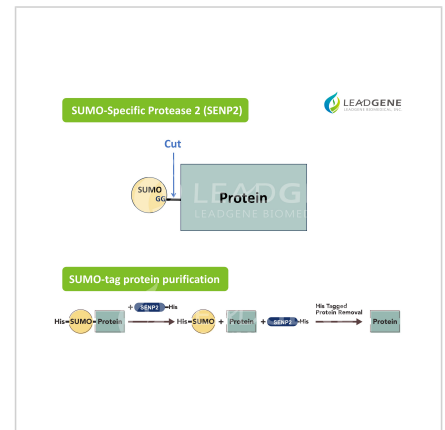
- -20°C or -80°C long-term storage under sterile conditions. Avoid repeated free-thaw cycles.

**Image**


SDS-PAGE analysis of substrate digested with SUMO-Specific Protease 2 (SEN2) in different ratio. Lane1: substrate only, Lane2: 1:25, Lane3: 1:50, Lane4 : 1:100



SDS-PAGE analysis of recombinant SUMO-Specific Protease 2 (SEN2).



SUMO-Specific Protease 2 (SEN2) recognizes SUMO tertiary structure and cleaves at the C-terminal end of the Gly-Gly sequence in SUMO.

**Disclaimer :** For Research Use or Further Manufacturing Only.

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**Tainan Headquarter**

☎ +886-6-2536677

✉ [bd@leadgene.com.tw](mailto:bd@leadgene.com.tw)

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☎ +886-2-27065528

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☎ +886-6-2536677