

# **SUMO-Specific Protease 2 (SENP2)**

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

For full product information, images and publications, please visit our website.



## **Overview**

### **Description**

SENP2 is an enzyme that belongs to the protease family C48. Structurally, SENP2 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. SENP2 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 SENP2 protease: target protein ratio is 1 µg:50 µg.
- 4. Reaction can be performed at  $4^{\circ}\text{C}-37^{\circ}\text{C}$ .  $4^{\circ}\text{C}$  is recommended as the starting standard. Incubate the reaction mixture at  $4^{\circ}\text{C}$  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.
  - SENP2 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**



**Expression system** 

Escherichia coli

**Purity** 

>95% as determined by SDS-PAGE analysis.

**Form** 

Liquid

### **Buffer**

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

#### **Endotoxin level**

<1 EU per 1  $\mu g$  of the protein by the LAL method

## Instruction

### **Shipping**

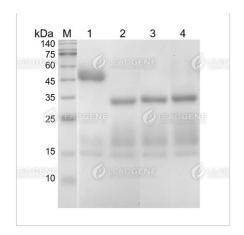
The product is shipped with polar packs. Upon receipt, store it immediately at -20°C or lower for long term storage.

### **Stability & Storage**

This product is stable after storage at:

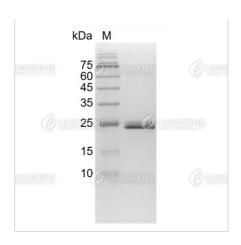
 -20°C or -80°C long-term storage under sterile conditions. Avoid repeated free-thaw cycles.

## **Image**

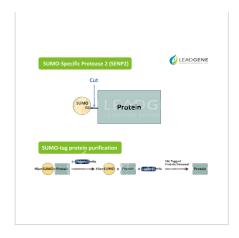


SDS-PAGE analysis of substrate digested with SUMO-Specific Protease 2 (SENP2) in different ratio.

Lane1: substrate only, Lane2: 1:25, Lane3: 1:50, Lane4: 1:100



SDS-PAGE analysis of recombinant SUMO-Specific Protease 2 (SENP2).



SUMO-Specific Protease 2 (SENP2) recognizes SUMO tertiary structure and cleaves at the C-terminal end of the Gly-Gly sequence in SUMO.

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