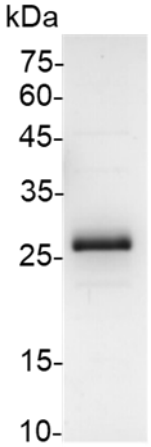
PRODUCT INFORMATION

SUMO Protease (ULP1) (Active)

v. 240301

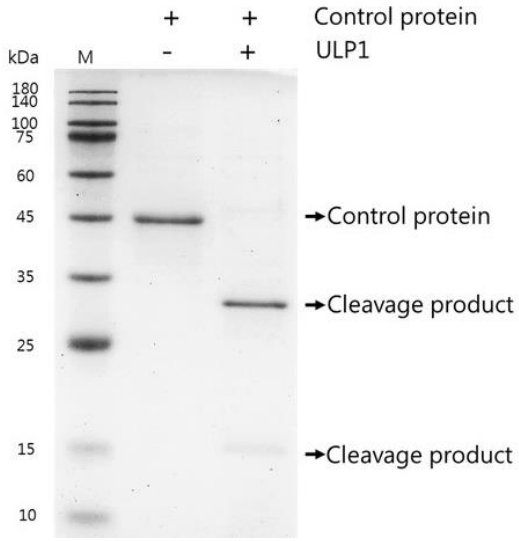
Catalog number	C09009-bulk / C09009-2500U
Package	Customized package / 2,500 U
Description	SUMO Protease (ULP1, Ubiquitin-like-specific protease 1) is a highly active cysteine protease derived from Saccharomyces cerevisiae. It has often been used as a biotechnological tool for cleavage affinity purification tags such as ubiquitin-like (UBL) protein, and SUMO from fusion proteins. ULP1 protease specifically recognizes the tertiary structure of SUMO rather than an amino acid sequence. ULP1 protease has a His-tag for easy removal from a cleavage reaction by using nickel affinity resins. Notably, the cleavage reactions are available in a buffer containing 2 M urea.
Source	Escherichia coli
Concentration	5 U/μL
Endotoxin level	<1 EU per 1 μg of the protein by the LAL method.
Unit Definition	One unit of SUMO Protease (ULP1) cleaves > 85% of 2 μg control substrate at 30°C for 1 h.
Purity	>90% as determined by SDS-PAGE analysis.
Form	Liquid
Storage Buffer	SUMO Protease is supplied in 25 mM Tris-HCl, 250 mM NaCl, 0.05% NP-40, 0.25 mM DTT, 50% glycerol, pH 8.0.
Stability & Storage	This product is stable after storage at: • -20°C or -80°C for 12 months under sterile conditions from date of receipt. Avoid repeated freeze/thaw cycles.



SDS-PAGE analysis of recombinant SUMO Protease (ULP1) (Active)

Manuel

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 of the SUMO Protease (ULP1) protease: target protein ratio is 1U:2 µg.
4. Reaction can be performed at 4°C-30°C. 4°C is recommended as the starting standard. Incubate the reaction mixture at 4°C for 16 hours or overnight.
5. Determine cleavage level of the samples by SDS-PAGE analysis.



■ SUMO Protease (ULP1) cleavage of control protein

The ratio of ULP1 to target protein in digesting assay was 1U to 2 µg at 4°C overnight. SDS-PAGE analysis of target protein digested with ULP1.

6. Once optimize for the cleavage condition, the cleavage reactions can be scaled up to cleave a large amount of the target fusion protein.

Notes	• SUMO Protease (ULP1) protease: target protein ratio of 1U:2 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. • SUMO Protease (ULP1) reactions can be performed in a buffer containing 2 M urea. • SUMO Protease (ULP1) reactions can be performed in a buffer which is optimal for the target protein. Salts (e.g., NaCl) can be added to 300 mM for cleavage efficiency evaluation.

For Research Use Only. Not for use in diagnostic and therapeutic procedures.