SUMO-GFP (Multi-Protease Control Protein)

CATALOG NO. : M1072-50 50 µg
M1072-250 250 µg

ALTERNATIVE NAMES: SUMO-Green Fluorescent Protein

SOURCE: *E. coli*

FORMULATION: Lyophilized from ~2 mg/ml solution of protein in 50 mM Tris, 100 mM NaCl, and pH 8.0

PURITY: >85% from SDS-PAGE and SEC analyses

MOLECULAR WEIGHT: 44.7 kDa (2-98 aa of yeast Smt3 with proprietary polypeptide linker followed by 1-238 aa of GFP and an N-terminal poly-his tag)

RECONSTITUTION: Reconstitute to 1 mg/ml in 50 mM Tris, 100 mM NaCl, pH 8.0 or other suitable buffer.

STORAGE CONDITION: Protein is stable at 4°C for 12 months in lyophilized form. After reconstitution, aliquoted proteins can be stored at -80° C for 6 months.

BACKGROUND: **SUMO** (**S**mall **U**biquitin-like **MO**difiers) fusion tag (**Smt3**), as an N-terminal fusion partner, has been shown to enhance functional protein production in prokaryotic and eukaryotic expression systems with significantly improved protein stability and solubility. **SUMO Protease 1** (**Ulp1 Peptidase**), which recognizes the tertiary structure of the **SUMO** tag, can be used to cleave the **SUMO** tag from recombinant fusion proteins resulting in target protein with no extra amino acids. SUMO-GFP is a recombinant fusion protein that contains yeast smt3 protein fused to GFP polypeptide sequence via a proprietary polypeptide linker. This fusion protein can be used as a cleavage control for testing the activity of **SUMO Protease 1** and other related proteases. The proprietary linker also contains additional proteolytic cleavage sites for **Thrombin**, **Enterokinase**, **HRV14 3C** (**Precission Protease**), **Factor Xa** and **Tobacco Etch Virus Proteases** (**TEV**). BioVision's SUMO-GFP can be used as a control protein substrate to test activities of these proteases.

APPLICATIONS: BioVision's SUMO-GFP can be used as a cleavage control protein for testing proteases including SUMO1, HRV14 3C, TEV, Factor Xa, Thrombin and Enterokinase.

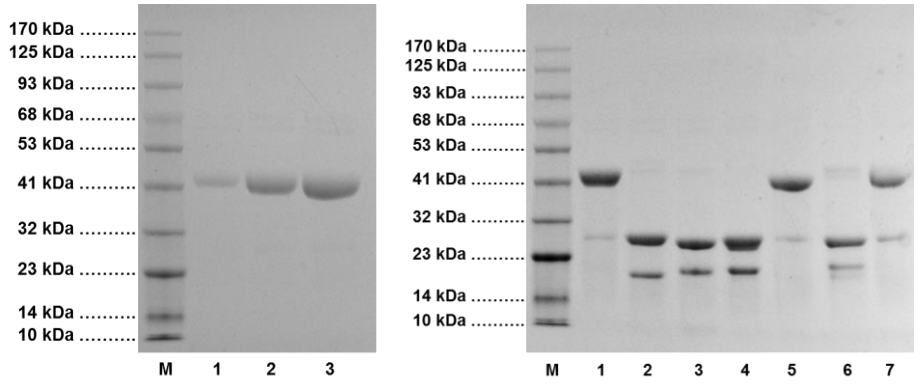
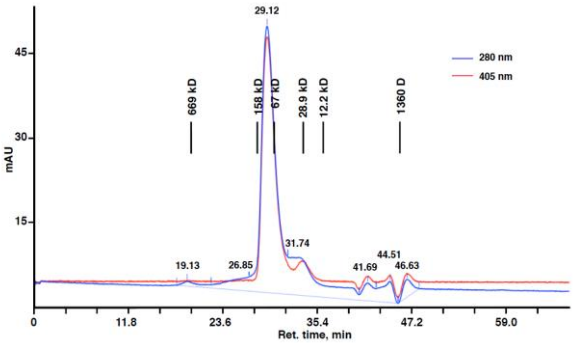


Figure Legend: (LEFT) 4-20% SDS-PAGE analysis of 5 µg SUMO-GFP (1), 10 µg SUMO-GFP (2), 15 µg SUMO-GFP (3)**.** (**M**: Protein Marker)
(RIGHT) 4-20% SDS-PAGE analysis of the cleavage reaction of 10 µg of SUMO-GFP control protein (**1**) by SUMO Protease 1 (**2**), HRV14 3C (**3**), TEV (**4**), Thrombin (**5**), Factor Xa (**6**) and Enterokinase (**7**). (**M**: Protein Marker)



SEC analysis of SUMO-GFP using a Superose 6 column at 0.4 ml/min in 50 mM sodium phosphate, 300 mM NaCl, pH 7.5 monitored at 280 (blue line) and 405 nm (red line).

RELATED PRODUCTS:

- EZCut™ SUMO Protease 1 (GST-tagged), Yeast Recombinant **(7869-100, -500)**
- EZCut™ SUMO Protease 1 (His-tagged), Yeast Recombinant **(7868-500,-2500,-10000)**
- SUMO1, human recombinant **(4941-100, -1000)**
- Active HRV14 3C Protease Recombinant **(8012-20,-100)**
- EZCut™ TEV Protease, Recombinant **(7847-1000,-10000)**
- Enterokinase, Light Chain, human recombinant **(7529-10,-50,-500)**
- Thrombin, Active, Bovine Plasma (High Activity) **(7592-1,-10,-100**)
- Factor Xa Activity Fluorometric Assay Kit **(K361-100)**
- Factor Xa Inhibitor Screening Kit (Fluorometric) **(K362-100)**

FOR RESEARCH USE ONLY! Not to be used in humans.

BioVision Incorporated
155 S. Milpitas Boulevard, Milpitas, CA 95035 USA

Tel: 408-493-1800 | Fax: 408-493-1801
www.biovision.com | tech@biovision.com