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 (Small Ubiquitin-like Modifiers) 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 (Precision 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).

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

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**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)