

SUMO-2, human recombinant

CATALOG #:	4942-100	100 µg
	4942-1000	1 mg
LOT #:	_____	
SOURCE:	<i>E. coli</i>	
PURITY:	> 95% as determined by SDS-PAGE	
ENDOTOXIN:	< 0.1 ng/µg of human SUMO-2	
MOLECULAR WEIGHT:	11.6 kDa	
PHYSICAL APPEARANCE:	liquid	
FORMULATION:	In 50 mM HEPES, pH 8.0, plus 150 mM NaCl, 1 mM DTT.	
STORAGE CONDITIONS:	Store at -80°C. Stable for 12 months. Avoid freeze/thaw cycles.	

DESCRIPTION:

SUMO modification has been implicated in functions such as nuclear transport, chromosome segregation and transcriptional regulation. SUMO1 functions in a manner similar to ubiquitin in that it is bound to target proteins as part of a post-translational modification system. Still, unlike ubiquitin which targets proteins for degradation, SUMO-2 is involved in a variety of cellular processes, for example nuclear transport, transcriptional regulation, apoptosis, and protein stability. The active recombinant SUMO-2 is derived from the precursor pro-SUMO-2 (Accession # NM_006937). Human SUMO-2 shares 44% and 86% identity with SUMO-1 and SUMO-3 respectively. SUMOylation can occur without the requirement of a specific E3 ligase activity, where SUMO is transferred directly from Ubch9 to specific substrates. SUMOylated substrates are primarily localized to the nucleus (RanGAP-1, RANBP2, PML, p53, Sp100, HIPK2) but there are also cytosolic substrates (IκBα, GLUT1, GLUT4). SUMO modification has been implicated in functions such as nuclear transport, chromosome segregation, transcriptional regulation, apoptosis and protein stability.

USAGE: Typical in vitro concentrations for conjugate formation is 10-50 µM depending on conditions.

RELATED PRODUCTS:

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- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set

Cell Fractionation System

- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

Cell Proliferation & Senescence

- Quick Cell Proliferation Assay Kit
- Senescence Detection Kit
- High Throughput Apoptosis/Cell Viability Assay Kits
- LDH-Cytotoxicity Assay Kit
- Bioluminescence Cytotoxicity Assay Kit
- Live/Dead Cell Staining Kit

Cell Damage & Repair

- HDAC Fluorometric & Colorimetric Assays & Drug Discovery Kits
- HAT Colorimetric Assay Kit & Reagents
- DNA Damage Quantification Kit
- Glutathione Fluorometric & Colorimetric Assay Kits
- Nitric Oxide Fluorometric & Colorimetric Assay Kits

Signal Transduction

- cAMP & cGMP Assay Kits
- Akt & JNK Activity Assay Kits
- Beta-Secretase Activity Assay Kit

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- Recombinant Adiponectin, Survivin, & Leptin
- CETP & PLTP Activity Assay & Drug Discovery Kits
- Total Cholesterol Quantification Kit

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- Cloning Insert Quick Screening Kit
- Mitochondrial & Genomic DNA Isolation Kits
- 5 Minutes DNA Ligation Kit
- 20 Minutes Gel Staining/Destaining Kit
- Luciferase and Beta-Gal Reporter Assays

Antibodies & Recombinant Proteins (many)