

Lot # XXXXX

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MATERIAL DATA SHEET

His₆-SUMO1, *human recombinant* Cat. # UL-715

The Ubiquitin-like SUMO1 is conjugated to a variety of proteins in the presence of Ubc9 and the SAE1/SAE2 (human) or Aos1/Uba2 (yeast) activating enzyme. SUMO1 is derived from the precursor pro-SUMO1. Human SUMO-1 shares 46% and 47% identity with SUMO-2 and SUMO-3 respectively. SUMOylation can occur without the requirement of a specific E3 ligase activity, where SUMO is transferred directly from Ubc9 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 and transcriptional regulation.

Product Information

Quantity:	500 µg
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 8.0, 150 mM NaCl, 1mM DTT.
MW:	13 kDa
Purity:	> 95% by SDS-PAGE under reducing conditions and visualized by colloidal Coomassie Blue stain.

Use & Storage

Use:	Typical <i>in vitro</i> concentrations for conjugate formation is 10-50 µM depending on conditions.
Storage:	Store in -80°C. Avoid multiple freeze/thaw cycles.

Literature

References:	Desterro J.M., <i>et al.</i> (1997) <u>FEBs. Lett.</u> 417 :297-300
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	Su H.L., <i>et al.</i> (2002) <u>Gene</u> 296 :65-73
	Tatham M.H., <i>et al.</i> (2001) <u>J. Biol. Chem.</u> 276 :35368-35374
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