

MATERIAL DATA SHEET**His₆-SUMO2, human recombinant****Cat. # UL-753**

The ubiquitin-like SUMO-2 is conjugated to a variety of proteins in the presence of UbcH9 and the SAE1/SAE2 (human) or Aos1/Uba2 (yeast) activating enzyme. 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 (I κ B α , GLUT1, GLUT4). SUMO modification has been implicated in functions such as nuclear transport, chromosome segregation, transcriptional regulation, apoptosis and protein stability.

Product Information

Quantity:	500 μ g
Stock:	X mg/ml (X μ M) in 50 mM HEPES pH 8.0, 150 mM NaCl, 1mM DTT. Actual protein concentration will vary with specific Lot #.
MW:	11.3 kDa
Purity:	> 95% by SDS-PAGE

Use & Storage

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

Literature

References:	Adams M. D., <i>et al.</i> (1993) <u>Nat.Genet.</u> 4 : 373-380, 1993. Dai K.-S. and Liew C.-C. (2001) <u>J.Biol.Chem.</u> 276 : 23992-23999 Kamitani T., <i>et al.</i> (1998) <u>J.Biol.Chem.</u> 273 : 11349-11353 Lapenta V. <i>et al.</i> (1997) <u>Genomics</u> 40 : 362-366 Huang W-C. <i>et al.</i> (2004) <u>Eur. J. Biochem.</u> 271 : 4114-4122 Mannen H., <i>et al.</i> (1996) <u>Biochem.Biophys.Res.Comm.</u> 222 :178-180 Su H.L. and Li S.S.-L. (2002) <u>Gene</u> 296 : 65-73 Chung T.L., <i>et al.</i> (2004) <u>J.Biol.Chem.</u> 279 : 39653-39662. Yeh E.T.H., <i>et al.</i> (2000) <u>Gene</u> 248 :1-14
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