

## MATERIAL DATA SHEET

### SUMO1 Mutant K7R, *human recombinant* Cat. # ULM-710

Human SUMO-1 does not contain the exact  $\psi$ KXE consensus sequence found in SUMO-2 and SUMO-3. Within this motif  $\psi$  represents a large hydrophobic amino acid (I, L, or V), K is the lysine that becomes modified, X is any residue and E is glutamic acid. Many known SUMO-1 conjugation sites occur within this consensus sequence, but SUMOylation also occurs on lysine residues located within non-consensus regions. SUMO-1 has been shown to form chains *in vitro* and *in vivo* but often the linkage is uncharacterized, and the function of SUMO chains has not yet been fully elucidated. SUMO-1 multimerization *in vitro* has been shown to occur predominantly via lysines K7, K16 and K17. Mutation of lysine 7 to arginine is useful to investigate mono-SUMOylation requirements or to reduce poly-SUMO chain formation.

#### Product Information

<b>Quantity:</b>	250 $\mu$ g
<b>Stock:</b>	X mg/ml (X $\mu$ M) in 50 mM HEPES pH 8.0, 150 mM NaCl, 1mM DTT. Actual concentration varies with lot number.
<b>MW:</b>	11.1 kDa
<b>Purity:</b>	> 95% by SDS-PAGE

#### Use & Storage

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

#### Literature

<b>References:</b>	Bencsath K. P., <i>et al.</i> (2002) <i>J. Biol. Chem.</i> <b>277</b> : 47938–47945 Dohmen R.J., <i>et al.</i> (2004) <i>Biochem. Biophys. Acta</i> <b>1695</b> : 114-131 Johnson E. S. and Gupta A. A., (2001) <i>Cell</i> <b>106</b> : 735–744 Johnson E.S. (2004) <i>Annu. Rev. Biochem.</i> <b>73</b> : 355-382 Pedrioli G. A., <i>et al.</i> (2006) <i>Nat. Meth.</i> <b>3</b> :533-539 Pichler A., <i>et al.</i> (2002) <i>Cell</i> <b>108</b> : 109-120 Rodriguez M.S., <i>et al.</i> (2001) <i>J.Biol.Chem.</i> <b>276</b> : 12654-12659 Sampson D.A., <i>et al.</i> (2001) <i>J.Biol.Chem.</i> <b>276</b> : 21664-21669 Takahashi Y., <i>et al.</i> (2003) <i>J. Biochem.</i> <b>133</b> :415–422 Tatham M.H., <i>et al.</i> (2001) <i>J.Biol.Chem.</i> <b>276</b> : 35368-35374. Yang M., <i>et al.</i> (2006) <i>J.Biol.Chem.</i> <b>281</b> : 8264-8274
--------------------	---

*For Laboratory Research Use Only, Not For Use in Humans*