

**MATERIAL DATA SHEET****Ubiquitin Mutant K48R/K63R, *human recombinant***  
**Cat. # UM-K4863R**

Mutation of lysine residues 48 and 63 to arginine renders ubiquitin unable to form poly-ubiquitin chains via these major known poly-ubiquitination sites. This ubiquitin double mutant can form an E1-catalyzed active thioester at the C-terminus allowing the molecule to be transferred to the lysines of substrate proteins.

**Product Information**

<b>Quantity:</b>	1 mg, lyophilized powder
<b>MW:</b>	8.5 kDa
<b>Solubility:</b>	Soluble and stable in aqueous buffers up to 5 mg/ml.
<b>Purity:</b>	> 95% by SDS-PAGE

**Use & Storage**

<b>Use:</b>	Typical concentrations for non rate-limiting support of <i>in vitro</i> conjugation reactions range from 200 $\mu$ M-1 mM depending on experimental conditions.
<b>Storage:</b>	Store at -20°C after solubilization in desired buffer. Avoid multiple freeze/thaw cycles.

**Literature**

<b>References:</b>	Arnason T., <i>et al.</i> (1994) <u>Mol. Cell. Biol.</u> <b>14</b> :7876-7883
	Baboshina D.V., <i>et al.</i> (1996) <u>J.Biol.Chem.</u> <b>271</b> :2823-2831
	Finley D., <i>et al.</i> (1994) <u>Mol. Cell. Biol.</u> <b>14</b> :5501-5509
	Johnson E.S., <i>et al.</i> (1992) <u>EMBO.J</u> <b>11</b> :497-5055
	Johnson E.S., <i>et al.</i> (1995) <u>J.Biol.Chem.</u> <b>270</b> : 17442-17756
	Spence J., <i>et al.</i> (1995) <u>Mol. Cell. Biol.</u> <b>15</b> :1265-1273
	Arnason T., <i>et al.</i> (1994) <u>Mol. Cell. Biol.</u> <b>14</b> :7876-7883
	Spence J., <i>et al.</i> (1995) <u>Mol. Cell. Biol.</u> <b>15</b> :1265-1273

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