

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

Mutation of lysine 48 to arginine renders ubiquitin (Ub) unable to form poly-Ub chains via lysine 48 linkages with other Ub molecules. Ub K48R can form an E1-catalyzed active thioester at the C-terminus allowing the molecule to be transferred to the lysines of substrate proteins (mono-ubiquitination). Ideal for the reduction in poly-Ub chain length/conjugation rates and determining if poly-Ub chains are K48 linked.

**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 10 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>	Chau V., <i>et al.</i> (1989) <u>Science</u> <b>243</b> :1576-1583 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
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