

MATERIAL DATA SHEET**His₆-Ubiquitin Mutant R74, *human recombinant*****Cat. # UM-HR74**

Mature forms of ubiquitin have a highly conserved diglycine motif at the carboxyl terminus which is crucial for activity and recognition in conjugation and deconjugation reactions. The removal of this diglycine peptide (Ub ending in Arg⁷⁴) results in an inactive Ub. This Ub cannot be activated by the E1 enzyme in an ATP-dependent manner, is not capable of subsequent thioester interaction with E2 and/or E3 enzymes, and is thus not capable of forming isopeptide bonds or Ub conjugates. It can be used as a negative control in conjugation reactions, or in binding studies with E1, E2, E3 and DUB enzymes or other proteins that interact with ubiquitin via ubiquitin-associated domains (UBAs) or ubiquitin-interacting motifs (UIMs). This protein contains an N-terminal His₆-tag.

Product Information

Quantity:	100 µg, lyophilized powder
Solubility:	Aqueous solutions up to 5 mg/ml
Purity:	> 95% by SDS-PAGE
MW:	9.4 kDa

Use & Storage

Use:	Typical concentrations will depend on specific assay conditions and method of detection.
Storage:	Solubilized solution at -20°C. Avoid multiple freeze/thaw cycles.

Literature

References:	Chau V. <i>et al.</i> (1989) <i>Science</i> , 243 :1576-1583 Hass A.L. and Rose I.A. (1982) <i>J.Biol.Chem.</i> 257 :10329-10337 Hass A.L. <i>et al.</i> (1985) <i>J.Biol.Chem.</i> 260 :4694-4703 Reyes-Turcu R.E., <i>et al.</i> (2006) <i>Cell</i> , 124 :1197-1208 Sloper-Mould K.E. <i>et al.</i> (2001) <i>J.Biol.Chem.</i> 276 :30483-30489 Thrower J.S. <i>et al.</i> (2000) <i>EMBO J.</i> 19 :94-102 Wilkinson K.D. and Audya T.K. (1981) <i>J.Biol.Chem.</i> 256 :9235-9241
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