Lot # XXXXX

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MATERIAL DATA SHEET

His_6-Ubiquitin Mutant G76A, *human recombinant*
Cat. # UM-HG76A

Mature Ub has a highly conserved C-terminal diglycine motif which is crucial for activity and recognition with conjugation and deconjugation enzyme components. The replacement the last glycine residue with alanine results in a Ub that supports E1-Ub thioester formation and downstream conjugation reactions (transfer to E2, E3) but at a rate ~20% compared to wildtype Ub. This mutant however, inhibits deconjugation and prevents the removal of Ub from modified protein substrates by deubiquitinating enzyme (DUBs). Since this Ub becomes irreversibly conjugated to protein, it shifts the equilibrium between the bound and unbound form in the direction of conjugation, at the expense of the free form. This protein contains an N-terminal His_6-tag.

Product Information

Quantity:	100 µg, lyophilized powder
Solubility:	Aqueous solutions up to 5 mg/ml
Purity:	> 95% by SDS-PAGE
MW:	9.3 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:

Dayal S. *et al.* (2009) J.Biol.Chem. **284**:5030-5041
Geng F. and Tansey W.P. (2008) Mol. Biol. Cell. **19**:3616-3624
Pickart C.M. *et al.* (1994) J.Biol.Chem. **269**:7115-7123
Ravid T. and Hochstrasser M. (2007) Nat. Cell Biol. **9**:422-427
Wilkinson K.D. *et al.* (1995) Biochem. **34**:14535-14546

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