
Product Data Sheet

Product Name: Ubiquitin G76A Human

Cat. No.: GP24938

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Ubiquitin; Ribosomal Protein S27a; CEP80; UBA80; UBCEP1; UBCEP80; HUBCEP80; RPS27A; Ubiquitin G76A.		
Formulation	Diluted in PBS plus 5% glycerol.		

Introduction

The conserved 76 amino acid protein ubiquitin (Ub) regulates a host of intracellular processes through its enzymatic conjugation to other cellular proteins. Ubiquitination occurs through sequential steps catalyzed by activating (E1), conjugating (E2), and ligase (E3) enzymes. The final step results in the formation of an isopeptide bond between Ub's C-terminal glycine residue (G76) and a lysine residue of the target protein, although N-terminal ubiquitination is also known. Outcomes of this modification include destabilization of the conjugated protein, altered protein trafficking and functional modulation. After targeting the protein for specific localizations, ubiquitin is released from the substrate by deubiquitinating enzymes. A mutant ubiquitin, having a Gly to Ala substitution at the C-terminus (G76A ubiquitin) supported several downstream reactions of the proteolytic pathway but inhibits the deubiquitination process. As a consequence, the Ub derivative becomes irreversibly conjugated to protein, shifting the equilibrium between the bound and unbound form in the direction of conjugation, at the expense of the free form.

Stability

Store vial at -20°C to -80°C. When stored at the recommended temperature, this protein is stable for 12 months. Please prevent freeze-thaw cycles.

Background

Recombinant human ubiquitin featuring a Gly76 to Ala76 mutation that, by inhibiting the

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

ubiquitin hydrolases, prevents the removal of ubiquitin from protein ubiquitin conjugates. Ubiquitin G76A is expressed in E.coli and purified by ion-exchange chromatography.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA