

Recombinant Full Length Human Ubiquitin Protein, Propargylamide Labeled

Cat. No. Ubiquitin-15HFL **Lot. No.** (See product label)

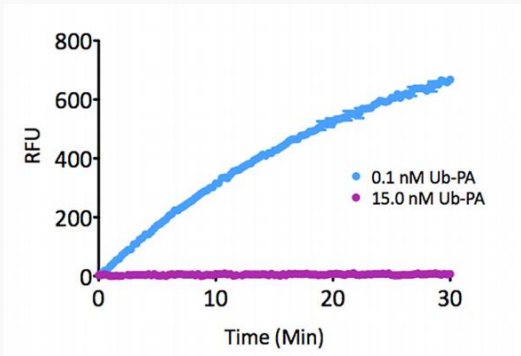
SPECIFICATION

Product Overview	This product consists of a full-length human, mature ubiquitin polypeptide (amino acids 1-76), expressed in E. coli with a c-terminal warhead (Propargylamide).
Species	Human
Source	E.coli
ProteinLength	1-76aa
Description	Ubiquitin is a small (8.5 kDa) regulatory protein that has been found in almost all tissues of eukaryotic organisms. The addition of ubiquitin to a substrate protein is called ubiquitination or ubiquitylation. Ubiquitination can affect proteins in many ways; it can signal for their degradation via the proteasome, alter their cellular location, affect their activity, and promote or prevent protein interactions. Removal of ubiquitin from a substrate protein occurs via deconjugating enzymes, of which there are nearly 100 known enzymes with various linkage specificities. Ubiquitin-Propargylamide is a potent, irreversible, and specific inhibitor of deubiquitinating enzymes (DUBs) based on a C-terminal electrophilic Propargylamide group. It targets three of the four major DUB families: UCH (Ubiquitin c-terminal hydrolases), USP (Ubiquitin Specific Proteases), OTU (Ovarian Tumor Proteases), and MJD (Machado-Josephin domain proteases) while JAMM metalloproteases are not inhibited.
Conjugation/Label	Propargylamide

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Molecular Mass	8.6 kDa																								
Purity	>97% by LCMS																								
Usage	Reaction conditions will need to be optimized for each specific application. We recommend an initial Recombinant Human Ubiquitin Propargylamide concentration of 1-5 μ M.																								
Applications	Ub-Propargylamide can be used for activity profiling experiments and determining DUB inhibitor specificity.																								
Notes	For Research Use Only, Not For Use In Humans.																								
Storage	Store at -80 centigrade after product arrival. Avoid multiple freeze/thaws. It is recommended to make multiple aliquots after the first thaw.																								
Storage Buffer	50mM MES pH 6.0, 100mM NaCl																								
Concentration	300 μ M, 2.6 mg/mL																								
Substrate Properties	Protein-Based Substrate. Typical experimental concentration 1-5 μ M.																								
Kinetic Activity	 The graph displays the kinetic activity of Ub-PA over a 30-minute period. The y-axis represents Relative Fluorescence Units (RFU) from 0 to 800, and the x-axis represents Time in minutes from 0 to 30. Two data series are plotted: 0.1 nM Ub-PA (blue line) and 15.0 nM Ub-PA (purple line). The 0.1 nM series shows a linear increase in RFU, while the 15.0 nM series shows no significant activity. <table><caption>Approximate data points from the Kinetic Activity graph</caption><thead><tr><th>Time (Min)</th><th>0.1 nM Ub-PA (RFU)</th><th>15.0 nM Ub-PA (RFU)</th></tr></thead><tbody><tr><td>0</td><td>0</td><td>0</td></tr><tr><td>5</td><td>100</td><td>0</td></tr><tr><td>10</td><td>200</td><td>0</td></tr><tr><td>15</td><td>300</td><td>0</td></tr><tr><td>20</td><td>400</td><td>0</td></tr><tr><td>25</td><td>500</td><td>0</td></tr><tr><td>30</td><td>650</td><td>0</td></tr></tbody></table>	Time (Min)	0.1 nM Ub-PA (RFU)	15.0 nM Ub-PA (RFU)	0	0	0	5	100	0	10	200	0	15	300	0	20	400	0	25	500	0	30	650	0
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UCHL3 activity with Ubiquitin-AMC measured in the presence of 15.0 nM and 0.1 nM Ubiquitin Propargylamide.

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