

Recombinant Full Length Human Ubiquitin Protein, HA tagged, Vinyl Pentyl Sulfone Labeled

Cat. No. Ubiquitin-11HFL **Lot. No.** (See product label)

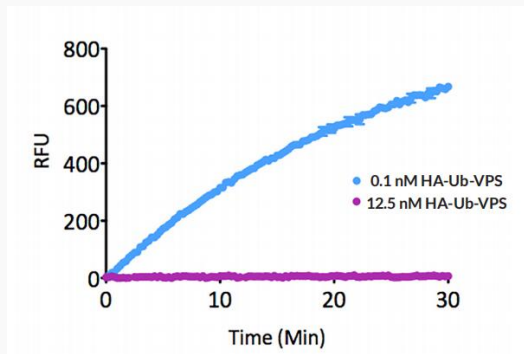
SPECIFICATION

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 (Vinyl Pentyl Sulfone) and an N-terminal HA-Tag.
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. 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. HA-Ubiquitin-Vinyl Pentyl-Sulfone is a potent, irreversible, and specific inhibitor of deubiquitinating enzymes (DUBs) based on a C-terminal electrophilic Vinyl Pentyl Sulfone 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.
Tag	HA

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Conjugation/Label	Vinyl Pentyl Sulfone																								
Molecular Mass	10.1 kDa																								
Purity	>97% by LCMS																								
Usage	Reaction conditions will need to be optimized for each application. We recommend an initial HA-Ubiquitin-VPS concentration of 1-5 μ M.																								
Applications	HA-Ub-Vinyl Pentyl Sulfone can be used for activity profiling experiments and using the HA-Tag conveniently for Immunoprecipitations in search for new or novel enzymes reacting with the c-terminal warhead.																								
Notes	For Research Use Only, Not For Use In Humans.																								
Storage	At -80 centigrade, Avoid multiple freeze/thaw.																								
Storage Buffer	50mM MES pH 6.0, 100mM NaCl																								
Concentration	220 μ M, 2.2 mg/mL																								
Kinetic Activity	 The graph illustrates the kinetic activity of HA-Ub-VPS. 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 HA-Ub-VPS (blue line) and 12.5 nM HA-Ub-VPS (purple line). The 0.1 nM series shows a significant increase in RFU over time, while the 12.5 nM series shows no activity. <table><caption>Approximate data points from the Kinetic Activity graph</caption><thead><tr><th>Time (Min)</th><th>0.1 nM HA-Ub-VPS (RFU)</th><th>12.5 nM HA-Ub-VPS (RFU)</th></tr></thead><tbody><tr><td>0</td><td>0</td><td>0</td></tr><tr><td>5</td><td>150</td><td>0</td></tr><tr><td>10</td><td>300</td><td>0</td></tr><tr><td>15</td><td>450</td><td>0</td></tr><tr><td>20</td><td>550</td><td>0</td></tr><tr><td>25</td><td>620</td><td>0</td></tr><tr><td>30</td><td>650</td><td>0</td></tr></tbody></table>	Time (Min)	0.1 nM HA-Ub-VPS (RFU)	12.5 nM HA-Ub-VPS (RFU)	0	0	0	5	150	0	10	300	0	15	450	0	20	550	0	25	620	0	30	650	0
Time (Min)	0.1 nM HA-Ub-VPS (RFU)	12.5 nM HA-Ub-VPS (RFU)																							
0	0	0																							
5	150	0																							
10	300	0																							
15	450	0																							
20	550	0																							
25	620	0																							
30	650	0																							

UCHL3 activity with Ubiquitin-AMC measured in the presence of 15.0 nM and 0.1 nM HA-Ubiquitin Vinyl Pentyl Sulfone.

Tel: 1-631-559-9269 1-516-512-3133

Email: info@creative-biomart.com Fax: 1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA