

HA-Ubiquitin-Vinyl Pentyl Sulfone

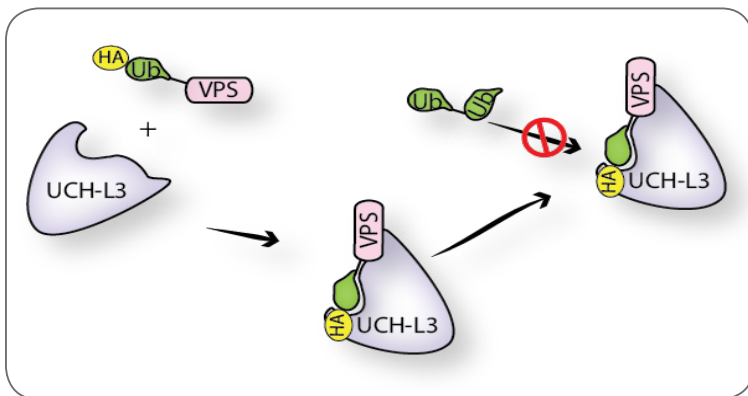
Cat. No. SBB-PS0125
Lot. No. 190690125



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HA-Ubiquitin-Vinyl Pentyl Sulfone

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. 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. 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. HA-Ub-VPS 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. Reaction conditions will need to be optimized for each application. We recommend an initial HA-Ubiquitin-VPS concentration of 1-5 μM .



Product Information

Quantity: 50 μg Molecular Weight: 10.1 kDa

Concentration: 220 μM , 2.2 mg/mL

Purity: >97% by LCMS

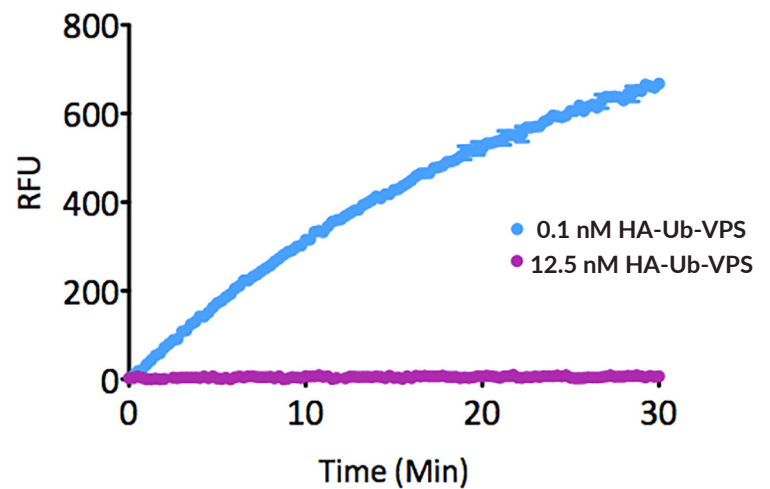
Storage Buffer: 50 mM MES pH 6.0, 100 mM NaCl

Storage: -80C, Avoid multiple freeze / thaw

Usage: Typical experimental concentration 1-5 μM

Quality Control and Performance Data

UCHL3 + Ub-AMC + HA-Ubiquitin-Vinyl Pentyl Sulfone



Kinetic Activity. UCHL3 (SBB-DE0023) activity with Ubiquitin-AMC (SBB-PS0043) measured in the presence of 15.0 nM and 0.1 nM HA-Ubiquitin Vinyl Pentyl Sulfone.

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References

- 1) Borodovsky et al. 2001, 20, 5187
 - 2) Xu et al. RSC Adv 2016, 6, 47926
 - 3) Hewing et al. Nat. Comm. 2018, 9, article number: 1162
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