

Ac-hISG15^{prox}-VPS (human sequence, proximal domain, synthetic)

UbiQ code : UbiQ-311
 Batch # : B01065021-001
 Amount : 50 ug, lyophilized powder
 Purity : ≥95%
 Mol. Weight : 9.15 kDa
 Storage : upon arrival, powder at -20°C, solution at -80°C. Please avoid multiple freeze/thaw cycles.

Productsheet

Background. UbiQ-311 is an activity-based probe (ABP) for ISG15 proteases. It is prepared by total chemical synthesis and based on the proximal domain of human ISG15. It contains a C-terminal vinyl pentynyl sulfone (VPS) electrophile (Figure 1), allowing for post-labeling modification of cross-linked [UbiQ-311]:[ISG15 protease] complexes by using click chemistry with for example biotin-azide.

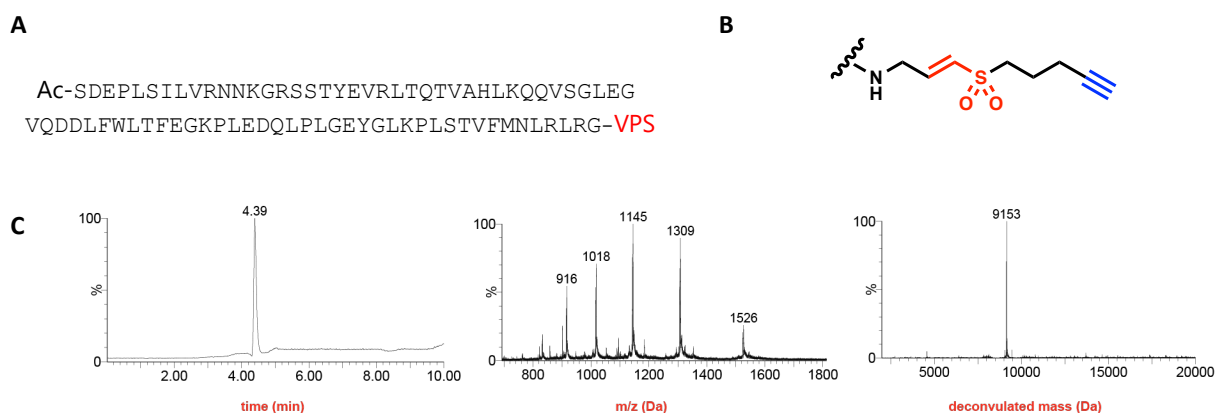


Figure 1. A: sequence. B: vinyl pentynyl sulfone (VPS). C: LC-MS analysis. Mobile phase A= 1% CH₃CN and 0.1% formic acid in water, B= 1% milliQ and 0.1% formic acid in CH₃CN. XBridge BEH300 C18, 3.5 μm, 4.6x100mm; column T= 40°C, flow= 0.8 mL/min. Gradient: 20–50%B over 6.5 min.

important: sample preparation

- dissolve the powder in DMSO
- depending on desired final substrate concentration, DMSO stocks may range from 1 – 40 mg/mL (103 μM – 4.12 mM)
- add the DMSO stock to milliQ and mix
- next, buffer as desired.
- for full experimental details about using VPS based probes, please see reference 3.

Literature. (1) El Oualid et al. *Angew Chem Int Ed* **2010**, 49, 10149. (2) Basters et al. *Nat Struct Mol Biol.* **2017**, 24, 270. (3) Hewing et al. *Nat Comm* **2018**, 9, article number 1162.