

UbiQ

targeting the ubiquitin system

Biotin-Ahx-SUMO2-VME (human sequence, C48S, synthetic)

UbiQ code : UbiQ-156
Batch # : B01072016-001
Amount : 50 ug, lyophilized powder
Purity : $\geq 95\%$ by RP-HPLC
Mol. Weight : 11.02 kDa
Storage : upon arrival, powder at -20°C ; solution at -80°C . Please avoid multiple freeze/thaw cycles.

Productsheet

Background. UbiQ-156 is an activity-based probe for SUMO proteases. It is based on the SUMO2 sequence (Cys48 mutated to Ser) in which the C-terminal is equipped with an electrophilic vinyl methyl ester (VME) group. The N-terminus is labeled with biotin and an aminohexanoic acid (Ahx) linker is used to create extra space between the biotin and SUMO protein for efficient access of biotin binding entities.

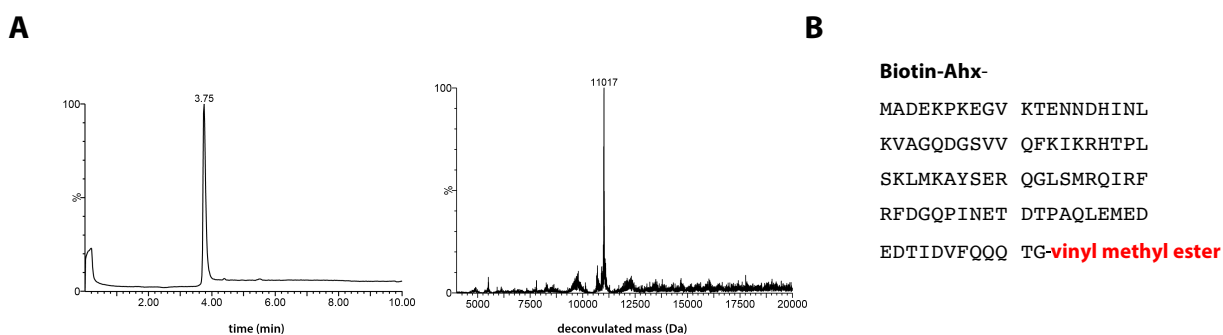


Figure 1. A: LC-MS analysis. Mobile phase A = 1% CH_3CN , 0.1% formic acid in water (milliQ) and B = 1% water (milliQ) and 0.1% formic acid in CH_3CN . XBridge BEH300 C18 $5\mu\text{m}$ $4.6 \times 100\text{mm}$; flow rate = 0.8 mL/min, runtime = 10 min, column T = 40°C . Gradient: 30% \Rightarrow 60% B over 6.5 min. **B:** sequence UbiQ-156.

important: sample preparation

- dissolve the powder in as little DMSO as possible (e.g. 20 – 40 mg/mL)
- add this DMSO stock slowly to milliQ (please note the order of addition) and buffer as desired.
- a final buffered stock of for example 0.5 mg/mL contains 2.5 vol% DMSO.
- for experimental details please see reference 1: <https://www.onlinelibrary.wiley.com/doi/full/10.1002/anie.201803483>

Literature. (1) Mulder et al. *Angew Chem Int Ed* **2018**, *57*, 8958. (2) Albrow et al. *Chem Biol* **2011**, *18*, 722. (3) Mendes et al. *Biochim Biophys Acta - Mol Cell Res* **2016**, *1863*, 139.