UbiQ
targeting the ubiquitin system

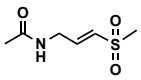
**Biotin-Ahx-Ub-VS** *(human sequence, Met1Nle, synthetic)*

| | | |
|---|---|---|
| UbiQ code | : | UbiQ-188 |
| Batch # | : | B01102016-001 |
| Amount | : | 50 ug, lyophilized powder |
| Purity | : | ≥95% |
| Mol. Weight | : | 8.96 kDa |
| Storage | : | upon arrival, powder at −20°C; buffered solution at −80°C. Please avoid multiple freeze/thaw cycles. |

# Productsheet

**Background.** UbiQ-188 is an activity-based probe for deubiquitinating enzymes (DUBs) based on ubiquitin (Ub) with a *C*-terminal electrophilic vinyl sulfone (VS) group. UbiQ-188 can be used for activity profiling experiments and determining DUB inhibitor specificity. It is labeled on the *N*-terminus with a biotin and a 6-aminohexanoic acid (Ahx) linker is introduced to create extra space between the biotin and Ub protein for efficient access of biotin binding entities. To eliminate Met1 oxidation, Met1 is replaced by norleucine, a well validated Met mimic.

**A**

Biotin-Ahx-Nle<u></u>QIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDYNIQKESTLHLVLRLRG 

**B**

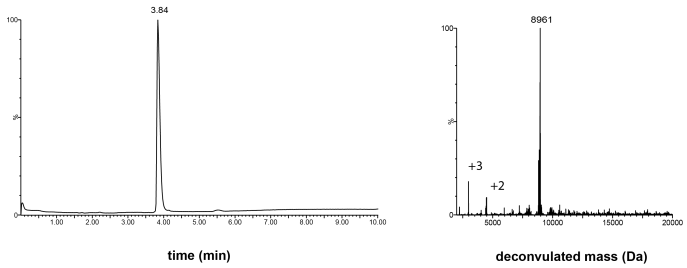



**Figure 1**. A: sequence UbiQ-188. B: LC-MS analysis. Mobile phase A= 1% $CH_3CN$, 0.1% formic acid in water and B= 1% water and 0.1% formic acid in $CH_3CN$. XBridge BEH300 C18 5µm 4.6x100mm; flow rate= 0.8 mL/min, column T= 40°C. Gradient: 30−60%B over 6.5 min.

## 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)
- buffer the aq. solution as desired
- for detailed assay conditions please see reference 1

**Literature.** (1) de Jong et al. *ChemBioChem* **2012**, *13*, 2251. (2) Cookson et al. *Cell Reports Physical Science* **2023**, *4*, 101636. (3) Chan et al. *Nature Comm* **2023**, *14*, 686. (4) Xu et al. *RSC Adv* **2016**, *6*, 47926.

**UbiQ Bio BV**
Chamber of Commerce 50023438
VAT NL822502136B01

Science Park 301
1098 XH Amsterdam
The Netherlands

t +31 20 303 1970
e info@ubiqbio.com
i www.ubiqbio.com

Rabobank
IBAN: NL86 RABO 0150658907
BIC/SWIFT: RABONL2U