UbiQ
targeting the ubiquitin system

Biotin-Ahx-Ub-VME *(human sequence, synthetic)*

UbiQ code	:	UbiQ-054
Batch #	:	B26112012-001
Amount	:	50 ug, lyophilized powder
Purity	:	≥95%
Mol. Weight	:	8.94 kDa
Storage	:	upon arrival, powder at −20°C, solution at −80°C. Please avoid multiple freeze/thaw cycles.

Productsheet

Background. UbiQ-054 is an activity-based probe for deubiquitinating enzymes (DUBs). It based on ubiquitin functionalised with a C-terminal electrophilic vinyl methyl ester (VME) and N-terminal biotin. An aminohexanoic acid linker is used to create extra space between the biotin and Ub protein for efficient access of biotin binding entities.

sequence

Biotin-Ahx-MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDYNIQKESTLHLVLRLRG-**VME**

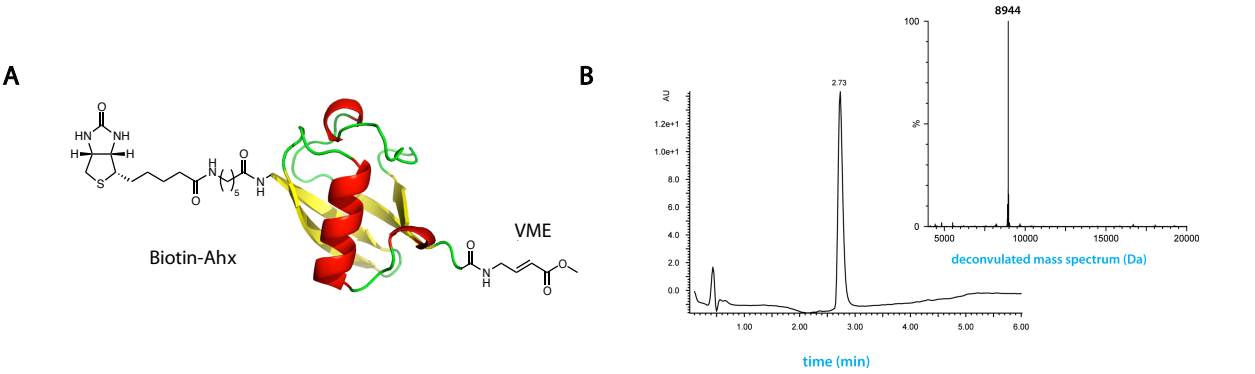

Figure 1. A: UbiQ-054. B: LC-MS analysis. Mobile phase A= 1% CH_3CN, 0.1% formic acid in water and B= 1% water and 0.1% formic acid in CH_3CN. Phenomenex Kinetex C18, (2.1×50 mm, 2.6 µM); flow rate = 0.5 mL/min, T = 40°C. Gradient: 5–95% over 3.5 min.

important: sample preparation

- dissolve the powder in as little DMSO as possible (e.g., 20 mg/mL)
- add this DMSO stock slowly to milliQ (please note the order of addition)
- next, buffer as desired
- for detailed experimental conditions please see reference 2

Literature. (1) Misaghi et al. *J Biol Chem* **2005**, *280*, 1512. (2) de Jong et al. *ChemBioChem* **2012**, *13*, 2251. (3) Kluge et al. *Bioorg Med Chem Lett* **2018**, *28*, 2655.

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