UbiQ
targeting the ubiquitin system

Biotin-Ahx-H2A(112-129) K119Ub *(human sequence, numbering without Met1, synthetic)*

UbiQ code	:	UbiQ-185
Batch #	:	B01102016-001
Amount	:	50 ug, lyophilized powder
Purity	:	≥95% by HPLC
Mol. Weight	:	10.9 kDa
Storage	:	upon arrival, powder at −20°C; solution at −80°C. Please avoid multiple freeze/thaw cycles.

Productsheet

Background. UbiQ-185 is based on an H2A(112-129) peptide which is monoubiquitinated at K119* via a native isopeptide bond and modified on the N-terminus with biotin. A 6-aminohexanoic acid (Ahx) linker is used to create extra space between the biotin and H2A peptide for efficient access of biotin binding entities. It can be used as a substrate for ubiquitin proteases, to investigate mechanism of binding and recognition by proteins that contain ubiquitin-associated domains or ubiquitin-interacting motifs (UIMs) and as antigen for immunizations.

** numbering without Met1*

A

Biotin-Ahx-QAVLLPKK(Ub)TESHHKAKGK

B

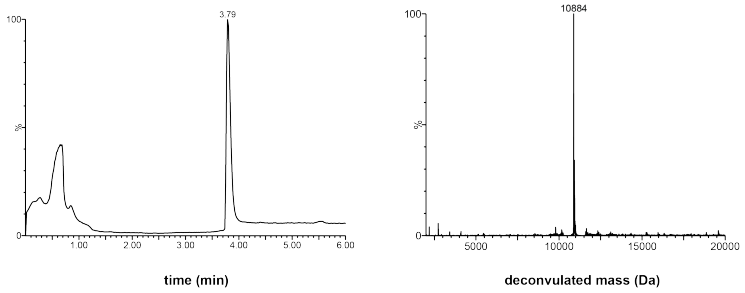

Figure 1. A: sequence. B: LC-MS analysis. Mobile phase A = 1% CH_3CN, 0.1% formic acid in water (milliQ) and B = 1% water (milliQ) and 0.1% formic acid in CH_3CN. XSelect CSH C18 (4.6×100 mm, 5 µM); flow rate= 0.8 mL/min, runtime = 6 min, column T= 40°C. Gradient: 30-60%B over 5.5 min.

important: sample preparation

- dissolve the powder in as little DMSO as possible (e.g. 20 mg/mL= 1.8 mM)
- add this DMSO stock slowly to milliQ (please note the order of addition)
- buffer the aq. solution as desired

Literature. (1) Faesen et al. *Chem & Biol* **2011,***18*, 1550. (2) Dikic et al. *Nature Rev Mol Cell Biol* **2010**, *10*, 659. (3) Licchesi et al. *Nature Struct & Mol Biol* **2012**, *19*, 62. (4) El Oualid et al. *Angew Chem Int Ed* **2010**, *49*, 10149.

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