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 modified at K119* via a native isopeptide bond with ubiquitin (Ub) and modified on the N-terminus with biotin. An 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*

sequence

Biotin-Ahx-QAVLLPKK(Ub)TESHHKAKGK

Ub = MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDYNIQKESTLHLVLRLRGG

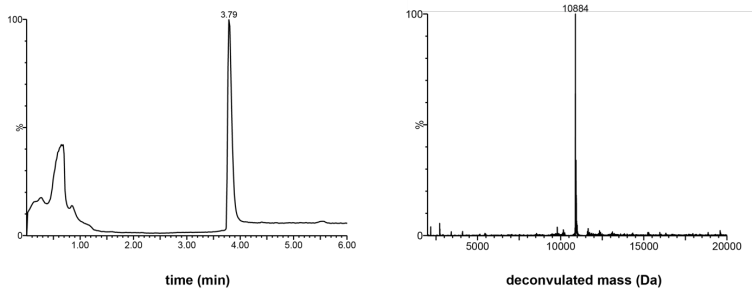

Figure 1. LC-MS analysis. Mobile phase A = 1% CH_3CN, 0.1% formic acid in water (milliQ) and B = 1% water (milliQ) and 0.1% formic acid in CH_3CN. XSelect CSH C18 (4.6×100 mm, 5 µM); flow rate= 0.8 mL/min, runtime = 6 min, column T= 40°C. Gradient: 30-60% over 5.5 min.

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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