UbiQ
targeting the ubiquitin system

Biotin-Ahx-H2B(113-125) K120Ub *(human sequence, synthetic)*

UbiQ code	:	UbiQ-184
Batch #	:	B01102016-001
Amount	:	50 ug, lyophilized powder
Purity	:	≥95% by HPLC
Mol. Weight	:	10.28 kDa
Storage	:	upon arrival, powder at −20°C; solution at −80°C. Please avoid multiple freeze/thaw cycles.

Productsheet

Background. UbiQ-184 is based on an H2B(113-125) peptide which is modified at K120 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 H2B 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.

sequence

Biotin-Ahx-EGTKAVTK(Ub)YTSSK

Ub = MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDYNIQKESTLHLVLRLRGG

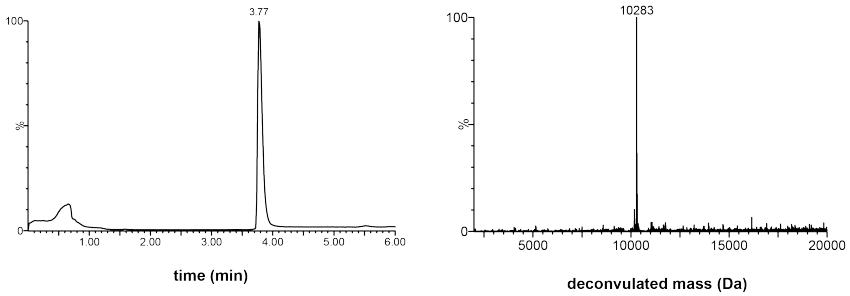

Figure 1. LC-MS analysis. Mobile phase A = 1% CH_3CN, 0.1% formic acid in water (milliQ) and B = 1% water (milliQ) and 0.1% formic acid in CH_3CN. XSelect CSH C18 (4.6×100 mm, 5 µM); flow rate= 0.8 mL/min, runtime = 6 min, column T= 40°C. Gradient: 30-60% over 5.5 min.

important: sample preparation

- dissolve the powder in as little DMSO as possible (e.g. 20 - 40 mg/mL)
- add the 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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