

UbiQ

targeting the ubiquitin system

Biotin-Ahx-H2B(106-125) K120 Ub (human sequence, synthetic)

UbiQ code : UbiQ-150

Batch # : B01112013-001

Amount : 50 ug , lyophilized powder

Purity : $\geq 95\%$ by RP-HPLC

Mol. Weight : 10.99 kDa

Storage : powder at -20°C ; solution at -80°C . Protect from light and avoid multiple freeze/thaw cycles.

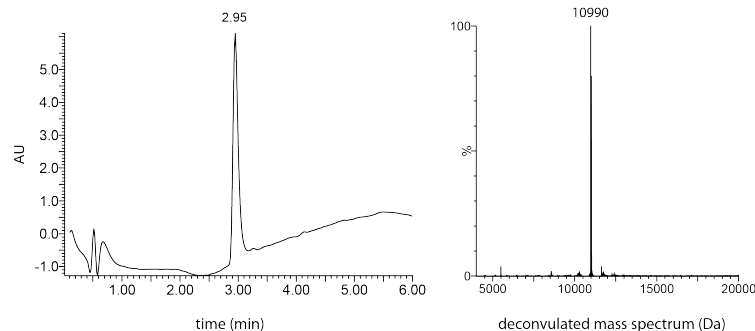
Productsheet

Background. UbiQ-150 is a H2B(106-125) polypeptide which is labeled on the N-terminus with biotin (separated by an aminohexanoic acid linker) and monoubiquitinated at K120 via a native isopeptide bond. It can be used as a substrate for deubiquitylases to investigate mechanism of binding and recognition by proteins that contain ubiquitin-associated domains or ubiquitin-interacting motifs (UIMs) and as antigen for immunizations. This product is formed by chemical ligation.

Sequence

Biotin-Ahx-LAKHAVSEGTKAVTK(Ub)YTSSK

Ub = MQIFVKLTGKTTITLEVEPSDTIENVKAKIQDKEGIPPDQQLIFAGKQLEDGRTLSDYNIQKESTLHLVLRGG



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 . Phenomenex Kinetex C18, (2.1 \times 50 mm, 2.6 μM); flow rate = 0.5 mL/min, runtime = 6 min, column T = 40°C . Gradient: 5% \Rightarrow 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)**
- **buffer the aq. solution as desired**
- **final stocks of e.g. 0.5 mg/mL will contain 2.5 vol% DMSO.**
- **buffer exchange using 3 kDa spin filters or dialysis membrane allows total removal of DMSO if desired.**
- **In general, DMSO conc up to 5 vol% are well tolerated by most DUBs**

Literature. (1) Faesen et al. *Chemistry & Biology*, **2011**, *18*, 1550. (2) Dikic et al. *Nature Reviews Molecular Cell Biology* **2010**, *10*, 659. (3) Licchesi et al. *Nature Structural & Molecular Biology* **2012**, *19*, 62. (4) El Oualid et al. *Angewandte Chemie Int. Ed.* **2010**, *49*, 10149.