

## cRh110-Ahx-H2B(113-125) K120(biotin-Ahx-Ub) (human sequence, synthetic)

UbiQ code : UbiQ-323  
 Batch # : B01125021-001  
 Amount : 50 ug, lyophilized powder  
 Purity : ≥95% by RP-HPLC  
 Mol. Weight : 10.75 kDa  
 Storage : upon arrival, powder at -20°C, solution at -80°C. Please avoid multiple freeze/thaw cycles.

## Productsheet

**Background.** UbiQ-323 is based on an H2B(113-125) peptide which is modified at K120 via a native isopeptide bond with N-terminally biotinylated ubiquitin (biotin-Ahx-Ub); modified on the N-terminus with the dye cRh110 (5-carboxyrhodamine110, exc= 490 nm, emi= 520 nm) and modified with a C-terminal amide. An 6-aminohexanoic acid (Ahx) linker is used to create extra space between the N-terminus and biotin or dye. 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.

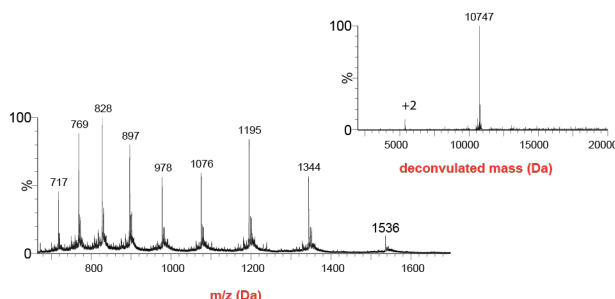
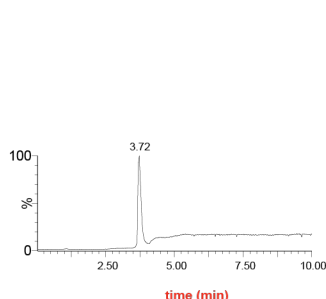
**A**

cRh110-Ahx-EGTKAVTK(biotin-Ahx-Ub)YTSSK-NH<sub>2</sub>

biotin-Ahx-Ub=

Biotin-Ahx-MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDYNIQKESTLHLVLRGG

**B**



**C**



**Figure 1.** A: sequence. B: LC-MS analysis. Mobile phase A= 1% CH<sub>3</sub>CN, 0.1% formic acid in milliQ and B= 1% milliQ and 0.1% formic acid in CH<sub>3</sub>CN. XBridge BEH300 C18 3.5 μm 4.6x100mm; column T= 40°C, flow= 0.8 mL/min. Gradient: 30–80% over 6.5 min. B: SDS-PAGE analysis. 12% Bolt Bis-Tris gel (LifeTechnologies), 190 V, MES buffer. Staining with InstantBlue Protein Stain (Expedeon).

### important: sample preparation

- dissolve the powder in as little DMSO as possible, e.g. 20 – 40 mg/mL (1.86 – 3.72 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.