

# UbiQ

targeting the ubiquitin system

## Biotin-Ahx-Ub pThr12 (human sequence, synthetic)

UbiQ code : UbiQ-093  
Batch # : B01102014-001  
Amount : 50 ug, lyophilized powder  
Purity :  $\geq 95\%$   
Mol. Weight : 8.98 kDa  
Storage : upon arrival, powder at  $-20^{\circ}\text{C}$ ; buffered solution at  $-80^{\circ}\text{C}$ . Please avoid multiple freeze/thaw cycles.

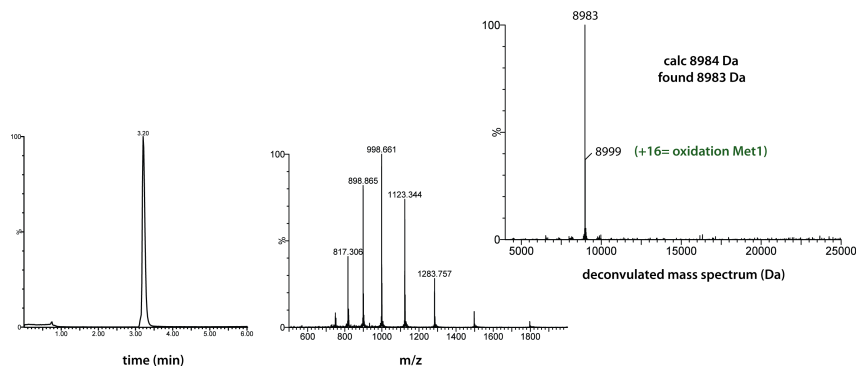
## Productsheet

**Background.** Biotin-Ahx-Ub pThr12 (UbiQ-093) is a ubiquitin protein that is phosphorylated on Thr12. Phosphoproteomic studies have identified several phosphorylated sites in ubiquitin, among them Thr12. UbiQ-093 is labeled on the N-terminus with biotin; a 6-aminohexanoic acid (Ahx) linker is used to create extra space between the biotin and Ub protein for efficient access of biotin binding entities. UbiQ-093 is made by total chemical synthesis and is therefore well-defined in terms of biotin and phosphothreonine site (**T<sup>P</sup>**) and incorporation efficiency (100%).

A

Biotin-Ahx-MQIFVKTLTGK**T<sup>P</sup>**ITLVEVPSDTIENVKAKIQDKEGIPDPQQLRFAGKQLEDGRTLSDYNIQKESTLHLVLRGG

B



**Figure 1.** Sequence (A) and LC-MS analysis (B). Mobile phase A= 1%  $\text{CH}_3\text{CN}$ , 0.1% formic acid in water and B= 1% water and 0.1% formic acid in  $\text{CH}_3\text{CN}$ . XBridge BEH300 C18  $5\mu\text{m}$   $4.6 \times 100\text{mm}$ ; column T =  $40^{\circ}\text{C}$ , flow= 0.8 mL/min. Gradient: 30–95% over 3.5 min.

### important: sample preparation

- dissolve the powder in as little DMSO as possible (20 - 40 mg/mL)
- add the DMSO stock to milliQ (please note the order of addition) and mix
- buffer the aq. solution as desired

**Literature.** (1) Kane *et al. J Cell Biol* **2014**, *205*, 143. (2) Kazlauskaitė *et al. Biochem J* **2014**, *460*, 127. (3) Kondapalli *et al. Open Biol* **2012**, *2*, 120080. (4) Koyano *et al. Nature* **2014**, *510*, 162. (5) V. Sauve and K. Gehring *Cell Res* **2014**, *24*, 1025. (6) Spratt *et al. Nat Commun* **2013**, *4*, 1983. (7) Trempe *et al. Science* **2013**, *340*, 1451. (8) T. Wauer and D. Komander *EMBO J* **2013**, *32*, 2099. (9) El Oualid *et al. Angew Chem Int Ed* **2010**, *49*, 10149.