

# UbiQ

targeting the ubiquitin system

## H2A (5-21) K13 Ub (human sequence, synthetic)

UbiQ code : UbiQ-172  
Batch # : B01012013-001  
Amount : 50 ug, lyophilized powder  
Purity :  $\geq 90\%$  by RP-HPLC  
Mol. Weight : 10.36 kDa  
Storage : upon arrival powder at  $-20^{\circ}\text{C}$ , solution at  $-80^{\circ}\text{C}$ . Please avoid multiple freeze/thaw cycles.

## Productsheet

**Background.** UbiQ-172 is a H2A(5-21) polypeptide which is modified with ubiquitin at K13 via a native isopeptide bond. 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. This product has been synthesized by chemical ligation.

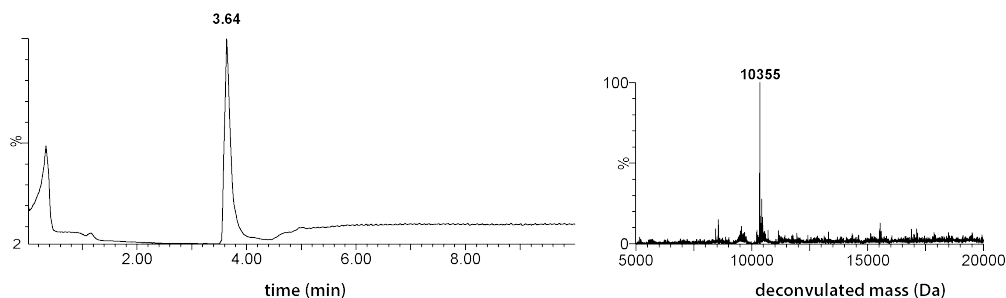
### Sequence

KQGGKARAK(**Ub**)AKTRSSRA

**Ub** = MQIFVKLTGKTTITLEVPSDTIENVKAKIQDKEGIPPDQQLIFAGKQLEDGRTLSDYNIQKESTLHLVLRGG

## 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 (e.g. 50 mM HEPES pH 8, 100 mM NaCl)
- 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
- all stocks are suitable for storage at  $-80^{\circ}\text{C}$



**LC-MS analysis.** Mobile phase A = 1%  $\text{CH}_3\text{CN}$ , 0.1% formic acid in water (milliQ) and B = 1% water (milliQ) and 0.1% formic acid in  $\text{CH}_3\text{CN}$ . XSelect CSH C18 (4.6 $\times$ 100 mm, 5  $\mu\text{M}$ ); flow rate= 0.8 mL/min, runtime = 6 min, column T=  $40^{\circ}\text{C}$ . Gradient: 30% $\Rightarrow$ 60% over 5.5 min.

**Literature.** (1) Mattioli et al. *Cell* **2012**, 150, 1182. (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.