

H2B (113-125) K120 Ub (*human, synthetic*)

UbiQ code : UbiQ-062
Batch # : B01032014-001
Amount : 50 ug, lyophilized powder
Purity : ≥95% by SDS-PAGE analysis
Mol. Weight : 9.95 kDa
Storage : powder at –20°C, solution at –80°C. Please avoid multiple freeze/thaw cycles.

Productsheet

Background. UbiQ-062 is a H2B(113-125) polypeptide which is monoubiquitinated at K120 via a native isopeptide bond. It can be used as a substrate for ubiquitin proteases,^{1,2} to investigate mechanism of binding and recognition by proteins that contain ubiquitin-associated domains or ubiquitin-interacting motifs (UIMs)³ and as antigen for immunizations. This product is formed by chemical ligation.⁴

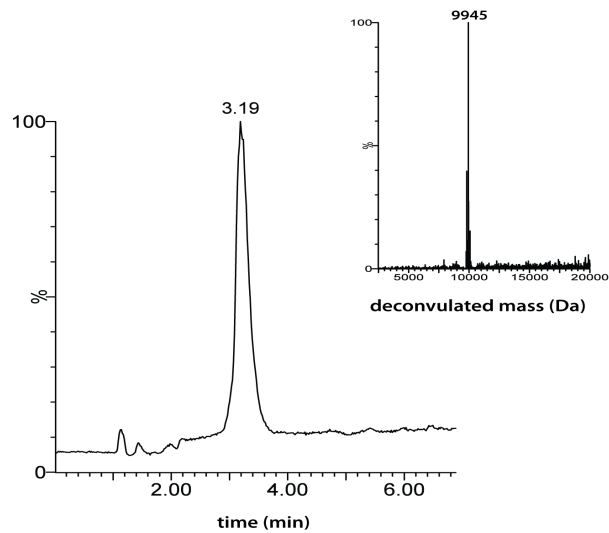
Sequence

EGTKAVTK (Ub) YTSSK

Ub = MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDYNIQKESTLHLVLRGG

Important: sample preparation

- dissolve the powder in as little DMSO as possible (e.g. 20 mg/mL = 1.8 mM)
- 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 (45 µM) will contain 2.5 vol% DMSO.
- buffer exchange using 3 kDa spin filters or dialysis membrane allows total removal of DMSO if desired; this is however not required as in general <5 vol% DMSO is well tolerated by most enzymes.



LC-MS analysis. Mobile phase A = 1% CH₃CN, 0.1% formic acid in water (milliQ) and B = 1% water (milliQ) and 0.1% formic acid in CH₃CN. Phenomenex Kinetex C18, (2.1×50 mm, 2.6 μM); flow rate = 0.5 mL/min, runtime = 6 min, column T = 40°C. Gradient: 20% ⇒ 75% over 3.5 min.

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.