

H2A (113-127) K119 Ub (*human sequence, synthetic*)

UbiQ code : UbiQ-060
Batch # : B27042012-001
Amount : 50 ug, lyophilized powder
Purity : $\geq 95\%$ by RP-HPLC
Mol. Weight : 11.1 kDa
Storage : upon arrival powder at -20°C , solution at -80°C . Please avoid multiple freeze/thaw cycles.

Productsheet

Background. UbiQ-060 is a H2A(113-127) polypeptide which is modified with ubiquitin at K119 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 has been synthesized by chemical ligation.⁴

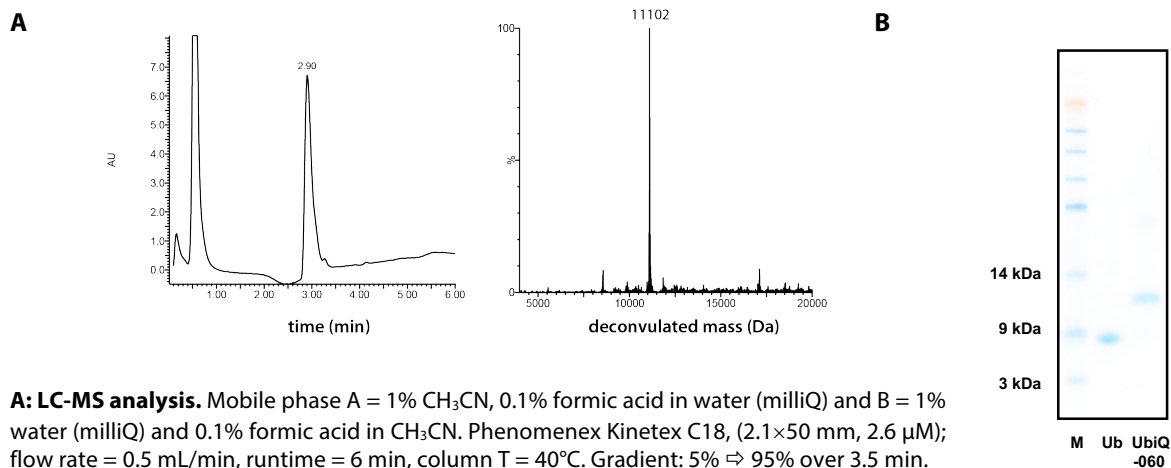
Sequence

QAVLLPK(Ub)KTESHKA

Ub = MQIFVKLTGKITLEVPSDTIENVKAKIQDKEGIPPDQRLIFAGKQLEDGRTLSDYNIQKESTLHLVLRGG

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
- all stocks are suitable for storage at -80°C



A: 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.

B: SDS-PAGE analysis. 12% Bolt Bis-Tris Plus gel (Life technologies), MES buffer. M= SeeBlue Plus2 Pre-stained Standard (Invitrogen).

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.