

Ub K27C (human sequence, recombinant)

UbiQ code : UbiQ-176
 Batch # : B01092016-001
 Amount : 1.00 mg, lyophilized powder
 Purity : ≥95% by RP-HPLC
 Mol. Weight : 8.54 kDa
 Storage : powder at -20°C; solution at -80°C. Please avoid multiple freeze/thaw cycles.

Productsheet

Background. UbiQ-176 is based on the ubiquitin protein (Ub) in which lysine 27 has been mutated to a cysteine residue. Ub Lys-to-Cys mutants can be used to prepare well-defined Ub-chains^{1,2} and site-selective functionalized Ub proteins (using thiol reactive moieties).

A

MQIFVKTLTGKTITLEVEPSDTIENVCAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDYNIQKESTLHLVLRLLGG

B

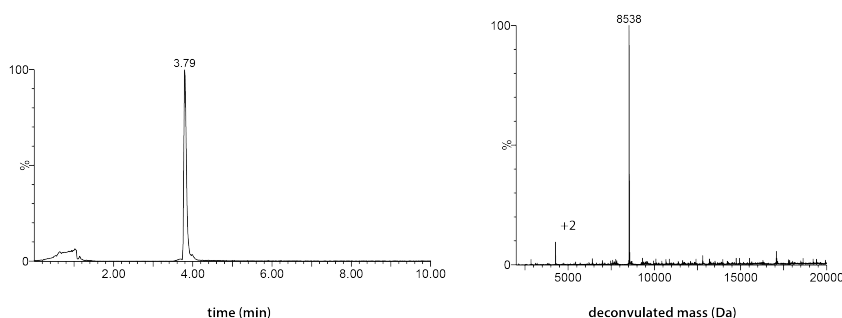


Figure 1. A: sequence. B: LC-MS analysis. Mobile phase A = 1% CH₃CN, 0.1% formic acid in water and B= 1% water and 0.1% formic acid in CH₃CN. XBridge BEH300 C18 5μm 4.6x100mm; flow rate = 0.8 mL/min, runtime = 10 min, column T = 40°C. Gradient: 30-60% B over 6.5 min.

important: sample preparation

- dissolve the powder in as little DMSO as possible (e.g. 20 - 40 mg/mL)
- add the 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)
- for example, a final buffered stock of 0.5 mg/mL (59 μM) will contain 1.25 vol% DMSO when prepared from a 40 mg/mL DMSO stock.

Literature. (1) Raasi et al *Methods Mol Biol.* **2005**, 301, 47. (2) Valkevich et al. *J Am Chem Soc.* **2012**, 134, 6916.