

(Biotin-Ahx-Ub)-(DNP-Ahx-Ub) K48 (human sequence, synthetic)

UbiQ code : UbiQ-056
 Batch # : B01112013-001
 Amount : 50 ug, lyophilized powder
 Purity : >90%
 Mol. Weight : 17.84 kDa
 Storage : upon arrival, powder at -20°C; solution at -80°C. Please avoid multiple freeze/thaw cycles.

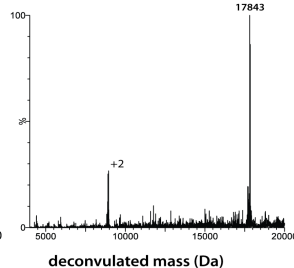
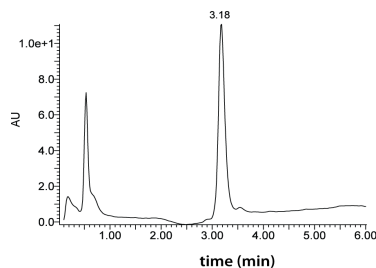
Productsheet

Background. UbiQ-056 is a native K48-linked di-ubiquitin which contains a biotin on the N-terminus of the proximal ubiquitin and N-(2,4-Dinitrophenyl)-6-aminohexanoic acid (DNP) group on the N-terminus of the distal ubiquitin. Both tags are separated from the N-terminus by a 6-aminohexanoic acid (Ahx) linker. The biotin can be used as conjugation site for labeled streptavidin or anti-biotin antibodies. UbiQ-056 is designed for the preparation of various K48-linked diUb conjugates, which can serve for example as DUB (HTRF) assay reagents.

A

Biotin-Ahx-MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLLIFAGKQLEDGRTLSDYNIQKESTLHLVLRGG
 DNP-Ahx-MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLLIFAGKQLEDGRTLSDYNIQKESTLHLVLRGG

B



C



D

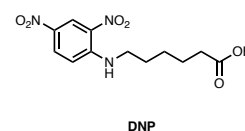


Figure 1. A: sequence UbiQ-056. B: LC-MS analysis. Mobile phase A= 1% CH₃CN, 0.1% formic acid in water and B= 1% water and 0.1% formic acid in CH₃CN. Phenomenex Kinetex C18, (2.1×50 mm), 2.6 μM; flow rate= 0.5 mL/min, column T= 40°C. Gradient: 5-95%B over 3.5 min. C: SDS-PAGE analysis (12% Bolt Bis-Tris, MES buffer), staining with CBB G-250. D: structure of DNP moiety.

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

Literature. (1) El Oualid et al. *Angew Chem Int Ed* **2010**, 49, 10149. (2) Geurink et al. *ChemBiochem* **2016**, 17, 816.