UbiQ
targeting the ubiquitin system

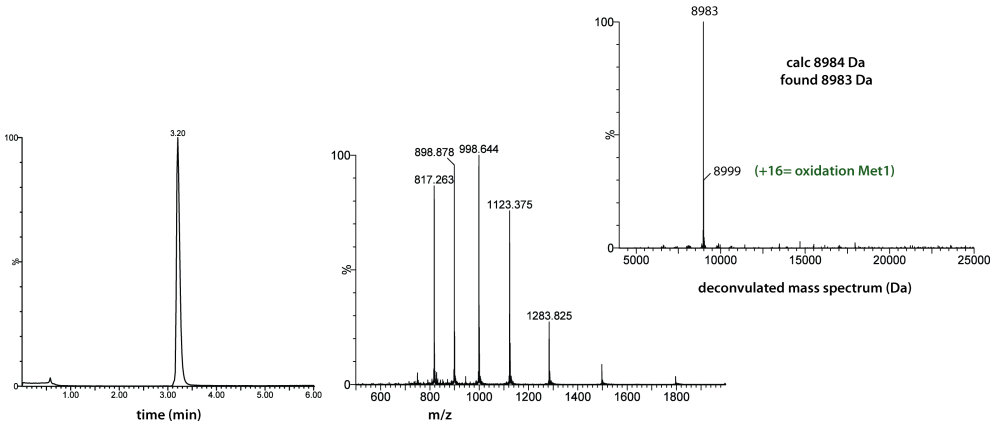
Biotin-Ahx-Ub pSer57 *(human sequence, synthetic)*
UbiQ code : UbiQ-094
Batch # : B01102014-001
Amount : 50 ug, lyophilized powder
Purity : ≥95% by RP-HPLC and SDS-PAGE
Mol. Weight : 8.98 kDa
Storage : upon arrival powder at −20°C; buffered solution at −80°C. Please avoid multiple freeze/thaw cycles.

Productsheet

Background. Biotin-Ahx-Ub pSer57 (UbiQ-094) is a ubiquitin protein that is phosphorylated on Ser57. Phosphoproteomic studies have identified several phosphorylated sites in ubiquitin, among them Ser57.[1-5] It is labeled on the *N*-terminus with biotin; an aminohexanoic acid (Ahx) linker is used to create extra space between the biotin and Ub protein for efficient access of biotin binding entities. It has been made by total chemical synthesis[6] and is therefore well-defined in terms of biotin and pSer site and incorporation efficiency (100%).

Sequence

biotin-Ahx-MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTL**S^{P}**DYNIQKESTLHLVLRLRGG



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. XBridge BEH300 C18 5µm 4.6x100mm; column T = 40°C, flow= 0.8 mL/min. Gradient: 30–95% over 3.5 min.

Important: sample preparation

- **dissolve the powder in as little DMSO as possible (e.g. 40 mg/mL)**
- **add this DMSO stock slowly to milliQ (please note the order of addition)**
- **buffer the aq. solution as desired (final stocks of e.g. 0.5 mg/mL will contain 1.25 vol% DMSO)**
- **buffer exchange using 3 kDa spin filters or dialysis membrane allows total removal of DMSO if desired.**

UbiQ Bio BV
Chamber of Commerce 50023438
VAT NL822502136B01

Science Park 408
1098 XH Amsterdam
The Netherlands

t +31 20 303 1970
e info@ubiqbio.com
i www.ubiqbio.com

Rabobank
IBAN NL86RABO0150658907
BIC/SWIFT RABONL2U

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Literature.

1) Bennetzen et al. *Mol Cell Proteomics* **2010**, *9*, 1314.
2) Bian et al. *J Proteomics* **2014**, *96*, 253.
3) Kettenbach et al. *Sci Signal*, **2011**, *4*, rs5.
4) Sharma et al. *Cell Rep* **2014**, *8*, 1583.
5) Zhou et al. *J Proteome Res* **2013**, *12*, 260.
6) El Oualid *et al. Angew Chem Int Ed* **2010**, *49*, 10149.

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