

UbiQ

targeting the ubiquitin system

LRRASLG–GG–H2B(113-125) K120Ub (human sequence, synthetic)

UbiQ code : UbiQ-332
Batch # : B01065022-001
Amount : 50 ug, lyophilized powder
Purity : ≥95% by RP-HPLC
Mol. Weight : 10.81 kDa
Storage : upon arrival, powder at –20°C, solution at –80°C. Please avoid multiple freeze/thaw cycles.

Productsheet

Background. UbiQ-332 is based on an H2B(113-125) peptide which is modified at K120 via a native isopeptide bond with ubiquitin (Ub); modified on the N-terminus with a PKA (cAMP-dependent Protein Kinase) sequence: LRRASLG; a Gly-Gly linker is used to create extra space between the PKA and H2B peptide sequence. It can be used as a substrate for ubiquitin proteases, to investigate mechanism of binding and recognition by proteins that contain ubiquitin-associated domains or ubiquitin-interacting motifs (UIMs) and as antigen for immunizations.

sequence

LRRASLGGGEGTKAVTK(Ub)YTSSK

Ub= MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQRLIFAGKQLEDGRTLSDYNIQKESTLHLVLRGG

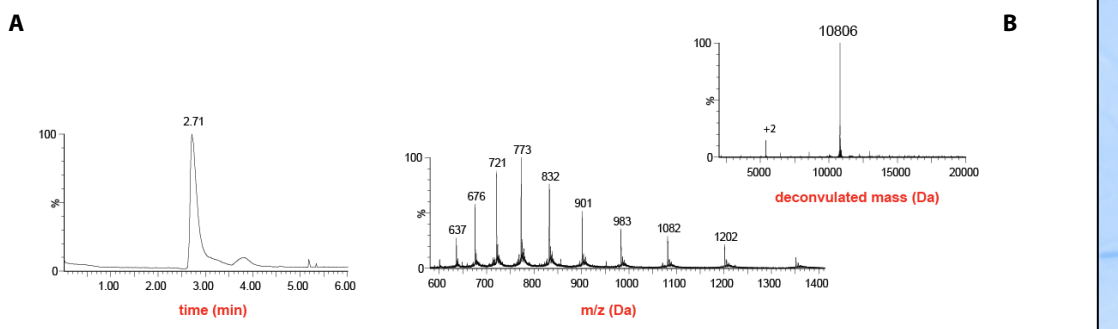


Figure 1. A: LC-MS analysis. Mobile phase A= 1% CH₃CN, 0.1% formic acid in milliQ and B= 1% milliQ and 0.1% formic acid in CH₃CN. XBridge BEH300 C18 3.5 μm 4.6x100mm; column T= 40°C, flow= 0.8 mL/min. Gradient: 30–80% B over 3.5 min. **B: SDS-PAGE analysis.** 12% Bolt Bis-Tris gel (LifeTechnologies), 190 V, MES buffer. Staining with InstantBlue Protein Stain (Expedeon).

important: sample preparation

- dissolve the powder in as little DMSO as possible, e.g. 21.6 – 43.2 mg/mL (2.00 – 4.00 mM)
- add this DMSO stock slowly to milliQ (please note the order of addition)
- buffer the aq. solution as desired

Literature. (1) Faesen et al. *Chem & Biol* **2011**,18, 1550. (2) Dikic et al. *Nature Rev Mol Cell Biol* **2010**, 10, 659. (3) Licchesi et al. *Nature Struct & Mol Biol* **2012**, 19, 62. (4) El Oualid et al. *Angew Chem Int Ed* **2010**, 49, 10149.