UbiQ

enabling ubiquitin-based drug discovery

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K119 Ub-γH2AX(115-143)-Ser140(PO4)-FP

UbiQ code : UbiQ-039
Batch # : B09082012-001 Protocol# : P09082012-001

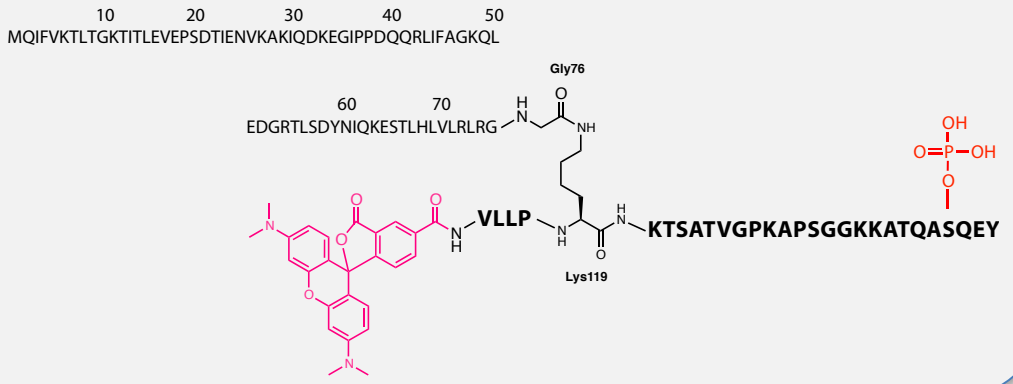
Product Information

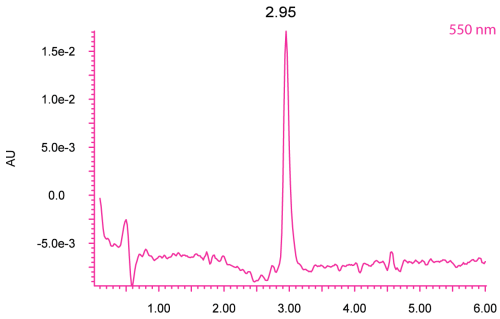
Amount : 0.08 mg lyophilized powder
Purity : ≥95% by RP-HPLC
Mol. Weight : 11.984 kDa by MS (cal 11.987 Da)
Storage : −20°C; buffered solution at −80°C. Please avoid multiple freeze/thaw cycles.

Background. Class II fluorescence polarization HTS reagent[1-4] based on the peptide sequence 115 – 143 of the histone protein γH2A-X, which is monoubiquitinated on Lys119 and phosphorylated on Ser140. The peptide is modified on the N-terminus with a 5-carboxytetramethylrhodamine, a phosphate group on Ser140 and conjugated at Lys119 to Ub via a native isopeptide bond.

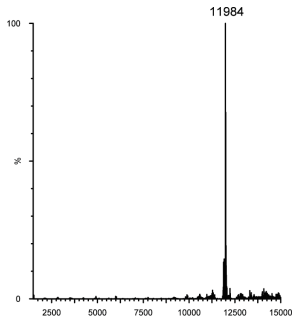
Important: sample preparation. Dissolve the powder in as little DMSO as possible (*e.g.* 12 mg/mL = 1000 µM) and add this DMSO stock to the required buffer (please note the order of addition).

Structure (*5-TAMRA*)-VLLPK^{119}(Ub)KTSATVGPKAPSGGKKATQAS^{140}(PO$_4$)QEY





time



deconvulated mass spectrum

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, (2.1×50 mm, 2.6 µM); flow rate = 0.5 mL/min, runtime = 6 min, column T = 40°C. Gradient: 5% ⇨ 95% over 3.5 min.

Literature.
(1) Tirat, A. et al. *Anal. Biochem.* **2005**, *343*, 244-255. (2) Huang et al. Methods in Molecular Biology **2009**, *565*, 127.
(3) Levine *et al. Anal. Biochem.* **1997**, *247*, 83. (4) Geurink and El Oualid et al. *ChemBiochem*, **2012**, *13*, 293.

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