

Europium Cryptate Ubiquitin

Cat. No. SBB-TR0014
Lot. No. 163060014

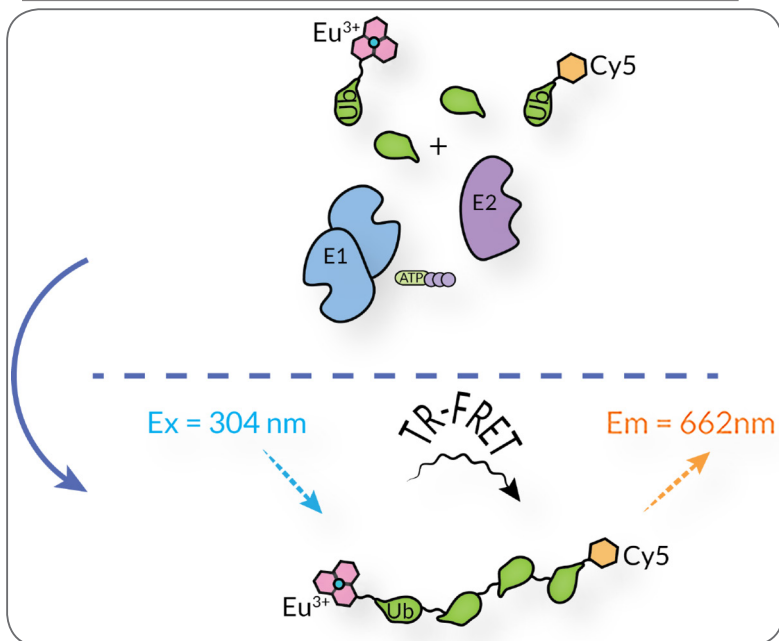


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Europium Cryptate Ubiquitin

Ubiquitin is a highly conserved protein that plays a major role in the ubiquitination pathway, which is conserved from yeast to mammals. Ubiquitination, the conjugation of ubiquitin to other proteins through a covalent bond between its C-terminal glycine and the 3-amino group of lysine residues or the 3-amino group of an N-terminal methionine onto proteins is essential for many cellular process primarily linked to protein degradation. This process involves three steps with specific groups of enzymes in an ATP depended manner, which are activation with ubiquitin-activating enzymes (E1s), conjugation with ubiquitin-conjugating enzymes (E2s), and ligation with ubiquitin ligases (E3s).

Highly purified recombinant ubiquitin site-specifically labeled with a single Europium Cryptate moiety. All lysines are available along with a fully functional C-terminus, making the Europium Cryptate Ub ideal for chain formation using the the E1 - E2 and E3 conjugation cascade. The Cryptate has an excitation maximum of 304nm and an emission maximum of 620nm. This protein was expressed in *E.coli*.



Product Information

Quantity: 20µg **Molecular Weight:** 9.9 kDa

Concentration: 300 µM, 2.9 mg/mL

Purity: >98% by LCMS

Excitation/Emission = 304nm /620nm

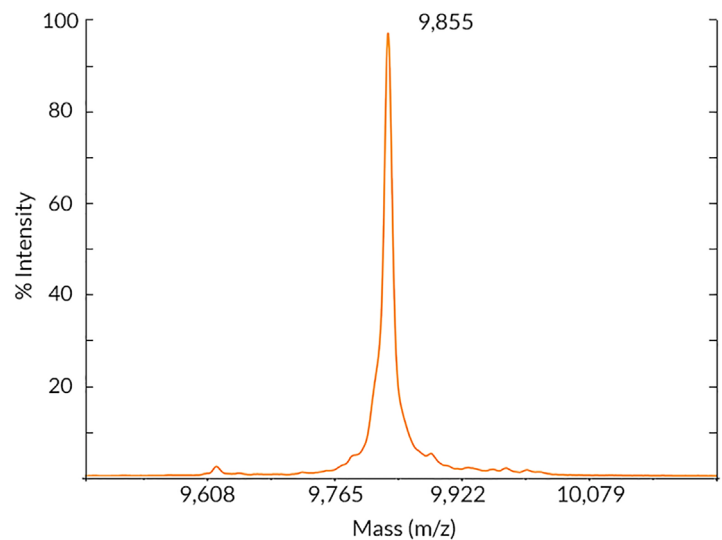
Storage Buffer: 50mM Hepes pH 7.5, 50mM NaCl

Storage: -80C, Avoid multiple freeze / thaw

Usage: Typical working concentrations range from 250 to 500 nM. However, the best working concentration needs to be empirically determined by the type of application by the end user.

Quality Control and Performance Data

Mass Spectrometry Data



LCMS. Analysis of Eu³⁺ Cryptate-Ubiquitin using LCMS intact mass determination indicates purity greater than 98%, and a molecular weight of 9,855 daltons.

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References

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 - 2) Komander, David and Michael Rape. "The Ubiquitin Code". Annual Review of Biochemistry 81.1 (2012): 203-229. Web. 9 Mar. 2017.
 - 3) Visser, A. J. W. G. et al. "Time-Resolved FRET Fluorescence Spectroscopy Of Visible Fluorescent Protein Pairs". European Biophysics Journal 39.2 (2009): 241-253. Web. 13 Mar. 2017.
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