UbiQ
targeting the ubiquitin system

Ubiquitin-aminoluciferin *(human sequence, synthetic)*

UbiQ code	:	UbiQ-036
Batch #	:	B01092013-001
Amount	:	100 ug, lyophilized powder
Purity	:	≥95% by RP-HPLC and SDS-PAGE
Mol. Weight	:	8.82 kDa
Storage	:	upon arrival, powder at –20°C; solution at –80°C. Please store in dark and avoid multiple freeze/thaw cycles.

Productsheet

Background. UbiQ-036 is based on ubiquitin that is *C*-terminally functionalized with 6-aminoluciferin (Figure 1A). Upon cleavage by a DUB, the released aminoluciferin functions as a substrate for luciferase, allowing detection of luminescence as a read-out for DUB-activity.

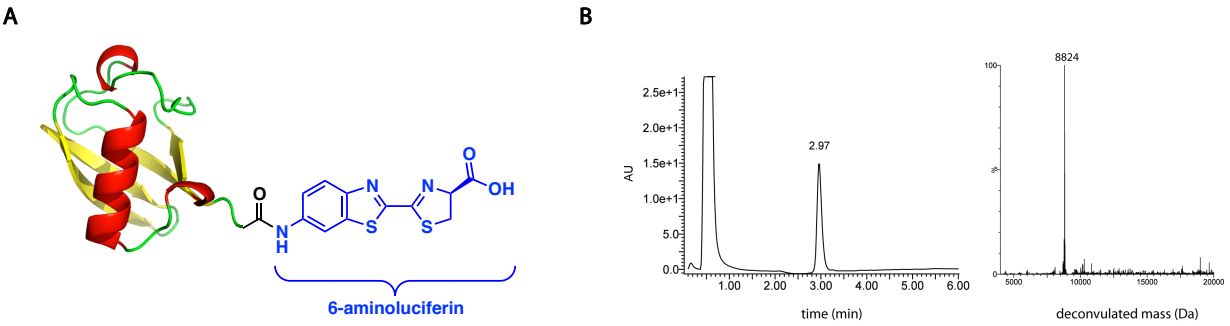

Figure 1. A: UbiQ-036. B: LC-MS analysis UbiQ-036. Mobile phase A= 1% CH_3CN, 0.1% formic acid in water and B= 1% water and 0.1% formic acid in CH_3CN. Phenomenex Kinetex C18, (2.1×50 mm), 2.6 µM); flow rate= 0.5 mL/min, column T= 40°C. Gradient: 5-95% B over 3½ min.

important: sample preparation

- dissolve the powder in as little DMSO as possible (e.g., 20 mg/mL, 2.27 mM)
- add this DMSO stock slowly to milliQ (please note the order of addition)
- buffer the aq. solution as desired

Literature. (1) (a) White et al. *J Am Chem Soc* **1966**, *88*, 2015. (b) Reddy et al. *J Am Chem Soc* **2010**, *132*, 13586. (2) Orcutt et al. *Biochim Biophys Acta* **2012**, *1823*, 2079. (3) El Oualid et al. *Angew Chem Int Ed* **2010**, *49*, 10149.

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