UbiQ Assay

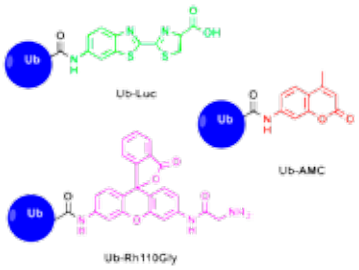
DUB ACTIVITY ASSAY REAGENTS

With UbiQ[Assay], UbiQ offers a wide range of deubiquitylating enzyme (DUB) activity assay reagents.

amide based DUB activity assay reagents[1]

Here Ub is linked via an amide bond to a reporter part, which becomes fluorescent or enzymatically active upon cleavage by a DUB.

Luc, Rh110, AMC read-out



specifications

AMC: exc/emi - 380/460nm
Rh110Gly: exc/emi - 485/535nm
LUC: exc/emi - 400/505nm

reagents

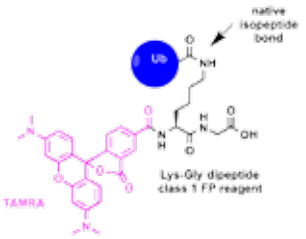
code	name
UbiQ-001	Ub-AMC
UbiQ-002	Ub-Rh110Gly
UbiQ-036	Ub-Luc

UbiQ-L03	DUB activity assay explorer panel (UbiQ-001, UbiQ-002, UbiQ-012, UbiQ-036)

isopeptide based fluorescence polarization (FP) DUB activity assay reagents[2]

Here, Ub/Ubl is linked via a native isopeptide bond to a TAMRA labelled peptide. This high molecular weight reagent emits largely polarized light (high mP) when excited. Upon cleavage by a DUB, the dye ends up covalently attached to a smaller and faster tumbling (di) peptide, resulting in light that is less polarized (low mP). DUB activity is monitored by following this change in polarization.

class I FP



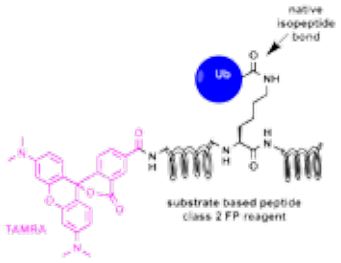
specifications

- **native isopeptide bond**
- high wavelength read out **exc/emi - 550/590 nm**
- proven in numerous industrial scale HTS campaigns

reagents

code	name
UbiQ-012	Ub-FP
UbiQ-019	Nedd8-FP
UbiQ-020	SUMO1-FP
UbiQ-021	SUMO2-FP
UbiQ-022	SUMO3-FP
UbiQ-073	ISG15-FP

class II FP



specifications

- **native isopeptide bond**
- high wavelength read out
- **exc/emi - 550/590 nm**
- proven in numerous industrial scale HTS campaigns
- **introduces substrate context**
- **custom design possible**

reagents

code	name
UbiQ-043	Ub-Ub(1-14)-FP K6 linked
UbiQ-044	Ub-Ub(4-17)-FP K11 linked
UbiQ-045	Ub-Ub(20-33)-FP K27 linked
UbiQ-046	Ub-Ub(22-35)-FP K29 linked
UbiQ-047	Ub-Ub(26-39)-FP K33 linked
UbiQ-048	Ub-Ub(41-54)-FP K48 linked
UbiQ-049	Ub-Ub(56-69)-FP K63 linked
UbiQ-029	K561(Ub) FANCD2 (557-565)-FP
UbiQ-030	K13 Ub-PTEN(5-21)-FP
UbiQ-038	K119 Ub-H2AX(115-143)-FP
UbiQ-039	K119 Ub-γH2AX (115-143)-Ser140(PO4)-FP

literature

1 (a) Dang et al. *Biochemistry* **1998**, *37*, 1868. (b) Mason et al. *Biochemistry* **2004**, *43*, 6535. (c) Hassiepin et al. *Analytical Biochem* **2007**, *371*, 201. (d) Orcutt et al. *Biochim Biophys Acta* **2012**, *1823*, 2079.

2 (a) Huang and Aulabaugh *Methods in Molecular Biology* **2009**, *565*, 127. (b) Tirat et al. *Analytical Biochemistry* **2005**, *343*, 244. (c) Geurink and El Oualid et al. *ChemBiochem* **2012**, *13*, 293. (d) Mevissen et al. *Cell* **2013**, *154*, 169.

→ **for a complete list of references we refer to the website or the product group overview.**

fact sheet, October 2014

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