

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		isopeptide based fluorescence polarization (FP) DUB activity assay reagents ²			
<p>Here Ub is linked via an amide bond to a reporter part, which becomes fluorescent or enzymatically active upon cleavage by a DUB.</p>		<p>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.</p>			
Luc, Rh110, AMC read-out		class I FP	class II FP		
specifications		specifications	specifications		
<p>AMC: exc/emi - 380/460nm Rh110Gly: exc/emi - 485/535nm LUC: exc/emi - 400/505nm</p>		<ul style="list-style-type: none"> • native isopeptide bond • high wavelength read out exc/emi - 550/590 nm • proven in numerous industrial scale HTS campaigns 	<ul style="list-style-type: none"> • 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		reagents	reagents		
code	name	code	name	code	name
UbiQ-001	Ub-AMC	UbiQ-012	Ub-FP	UbiQ-043	Ub-Ub(1-14)-FP K6 linked
UbiQ-002	Ub-Rh110Gly	UbiQ-019	Nedd8-FP	UbiQ-044	Ub-Ub(4-17)-FP K11 linked
UbiQ-036	Ub-Luc	UbiQ-020	SUMO1-FP	UbiQ-045	Ub-Ub(20-33)-FP K27 linked
		UbiQ-021	SUMO2-FP	UbiQ-046	Ub-Ub(22-35)-FP K29 linked
		UbiQ-022	SUMO3-FP	UbiQ-047	Ub-Ub(26-39)-FP K33 linked
		UbiQ-073	ISG15-FP	UbiQ-048	Ub-Ub(41-54)-FP K48 linked
				UbiQ-049	Ub-Ub(56-69)-FP K63 linked
UbiQ-L03	DUB activity assay explorer panel (UbiQ-001, UbiQ-002, UbiQ-012, UbiQ-036)			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

- (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.
 - (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.**