

## 2011 New Products

- **UBIQUITIN CHAINS (K6, 11, 27, 29, 33, 48, 63)**
- **DEUBIQUITINATING (DUB) ENZYME SUBSTRATES AND INHIBITORS**
- **UBIQUITIN BINDING DOMAINS (TUBEs, UBDs, UBAs, UIMs)**
- **PROTEASOME REAGENTS**

### UBIQUITIN CHAINS

- All lysine linkages now available
- No amino acid mutations
- Fully functional di-Ubiquitin (di-Ub)
- Native isopeptide bonds
- Useful for enzyme, antibody and binding studies

New Ubiquitin Chains	Cat #	Size
K6-linked di-Ub (Ub <sub>2</sub> )	UC-11	25 µg
K27-linked di-Ub (Ub <sub>2</sub> )	UC-61	25 µg
K29-linked di-Ub (Ub <sub>2</sub> )	UC-81	25 µg
K33-linked di-Ub (Ub <sub>2</sub> )	UC-101	25 µg
Linear Tetra Ubiquitin	UC-710	100 µg

### UBIQUITIN BINDING DOMAINS (TUBEs, UBDs, UIMs)

New UBDs, TUBEs, UIMs	Cat #	Size
hHR23A (TUBE1) agarose	AM-125	0.25 ml
Ubiquilin-1 (TUBE2) agarose	AM-130	0.25 ml
His <sub>6</sub> -Ataxin UIM	UBE-100	250 µg
Biotin-Ataxin UIM	UBE-105	250 µg
His <sub>6</sub> -Ubiquilin-1 (TUBE2)	UBE-110	250 µg
Biotin-Ubiquilin-1 (TUBE2)	UBE-115	250 µg
His <sub>6</sub> -hHR23A (TUBE1)	UBE-210	250 µg
Biotin-hHR23A (TUBE1)	UBE-215	250 µg
His <sub>6</sub> -Rap80 UIM	UBE-230	250 µg
Biotin-Rap80 UIM	UBE-235	250 µg
Biotin-S5a	UBE-305	250 µg

· Ubiquitin binding domains (TUBEs, UBDs, UIMs) can be used for the isolation and identification of poly-ubiquitinated proteins

· TUBEs may provide increased affinity for polyubiquitin moieties over single UBDs and proteolytic protection from DUBs, allowing for detection at low levels

· Many offer specificity for K63- or K48-linked poly-Ub chains or ubiquitinated substrates.

### PROTEASOME REAGENTS

**PA28** is an 11S multimeric complex that binds the two ends of the 20S proteasome and stimulate its capacity to hydrolyze small peptides. It functions in immunoproteasome assembly and is required for antigen processing.

New Proteasome Reagents	Cat #	Size
PA28 Activator β subunit	E-382	100 µg
PA28 Activator γ subunit	E-384	100 µg

## DEUBIQUITINATING (DUB) ENZYME SUBSTRATES AND INHIBITORS

### Di-Ubiquitin (di-Ub) FRET Substrates:

customizable substrates with true isopeptide bonds for the study of DUBs. These fluor-based substrates are superior to gel densitometry assays which are not scalable and are time and substrate consuming.

- Real time measurement of isopeptide bond cleavage
- Compatible kinetic rates to WT Di-ubiquitin
- Identify activity difference for CD and FL DUBs
- Screen chain linkage specificity of different DUBs

**Fluorescence polarization (FP) high-throughput screening (HTS) substrate:** useful for studying ubiquitin C-terminal hydrolytic activity when detection sensitivity or continuous monitoring of activity at longer wavelengths is essential.

**IU1 USP14 inhibitor:** cell permeable inhibitor of the proteasome associated DUB, USP14.

**Ubiquitin Vinyl Methyl Ester (Ub-VME):** A potent, irreversible and specific inhibitor of DUBs. This reagent can be used in substitution for Ubiquitin Vinyl Sulfone (Ub-VS).

New di-Ub FRET Substrates	Cat #	Size
K11 FRET di-Ub, POS4, TAMRA	UF-440	50 µg
K48 FRET di-Ub, POS1, TAMRA	UF-210	50 µg
K48 FRET di-Ub, POS1, EDANS	UF-211	50 µg
K48 FRET di-Ub, POS2, TAMRA	UF-220	50 µg
K48 FRET di-Ub, POS2, EDANS	UF-221	50 µg
K48 FRET di-Ub, POS3, TAMRA	UF-230	50 µg
K48 FRET di-Ub, POS3, EDANS	UF-231	50 µg
K63 FRET di-Ub, POS1, TAMRA	UF-310	50 µg
K63 FRET di-Ub, POS1, EDANS	UF-311	50 µg
K63 FRET di-Ub, POS2, TAMRA	UF-320	50 µg

New FP Substrate	Cat #	Size
5-TAMRA-Lys (Ub)-Gly-OH	U-558	50 µg

New DUB Inhibitors	Cat #	Size
IU1 USP14 Inhibitor	I-300	1 mg
Ubiquitin Vinyl Methyl Ester	U-203	50 µg

New Deconjugation Kits	Cat #	Size
Deubiquitinating (DUB) Enzyme Set (includes 7 DUBs)	K-E10	1 kit
Deconjugating Enzyme Probe Set (HA-UBL-VS)	K-I10	1 kit
Deubiquitinating (DUB) Enzyme FRET Substrate Kit (5 customizable substrates)	K-S10	1 kit

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