

Di-ubiquitin (Ub2) Explorer Panel

Cat. # SI200

Background: The reversible conjugation of ubiquitin and ubiquitin-like proteins to substrates regulates a large number of cellular processes. Deciphering these complex pathways is the focus of many researchers but the work has been slowed by the lack of high quality reagents. Deubiquitinating enzymes (DUBs) recognize and cleave the isopeptide bond between ubiquitin moieties or between ubiquitin and the target protein. Measurement of the activity of these enzymes for kinetic study or inhibitor screening has been traditionally carried out using ubiquitin conjugated to fluorescent leaving groups (AMC or Rhodamine) at the C-terminus. While these are suitable substrates for many deubiquitinating enzymes, the cleavage of the amide bond serves as a proxy for the true activity of isopeptidases, *i.e.* cleavage of an isopeptide bond.

LifeSensors has produced a complete panel of all eight possible di-ubiquitin molecules (including C to N-linked linear molecules) for determining the linkage specific activity of individual DUBs. This kit is a convenient collection of these di-Ub molecules for the an initial survey of linkage-specificity.

General Product Information

Purity:	≥ 95% by RP-HPLC analysis
Quantity:	5.0 µg
Solubility:	>1mg/mL
Storage:	-80° C. Avoid repeated freeze/thaw cycles

Kit Contents

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Supplied in solution:	0.5mg/mL	20 mM Tris-HCl, pH 7.5, 0.15 M NaCl, 1 mM EDTA
Linear di-Ub (M1)	SI0102	Recombinant protein, N-terminal His ₆ -tag, Mass: 17,786 Da, liquid, 0.5mg/mL
K6-linked di-Ub	SI0602	Synthetic protein, Mass: 17,111 Da
K11-linked di-Ub	SI1102	Enzymatically conjugated, rec. protein, Mass: 17,111 Da
K48-linked di-Ub	SI4802	Enzymatically conjugated, recombinant protein, K48R mutation in distal Ub, Mass: 17,140 Da
K63-linked di-Ub	SI6302	Enzymatically conjugated, recombinant protein, K63R mutation in distal Ub, Mass: 17,140 Da
Supplied dry:		Lyophilized from 0.05% HOAc. Dissolve in minimal amount of diH ₂ O. Dilute in buffer with sufficient capacity to neutralize acid (50 – 100 mM).
K27-linked di-Ub	SI2702	Synthetic protein, Mass: 17,111 Da
K29-linked di-Ub	SI2902	Synthetic protein, Mass 17,111 Da
K33-linked di-Ub	SI3302	Synthetic protein, Mass: 17,111

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