Ubiquitin aldehyde, (recombinant)

High purity inhibitor of deubiquitinylating enzymes (DUBs).

Synthetically modified recombinant ubiquitin. The modification of the C-terminal glycine carboxyl into an aldehyde results in a potent, highly specific inhibitor of all ubiquitin deconjugating enzymes, including ubiquitin C-terminal hydrolases (UCHs), ubiquitin-specific proteases (USPs) and deubiquitinylating enzymes (DUBs).

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BML-UW8450-0050	50µg

Manuals, SDS & CofA View Online »

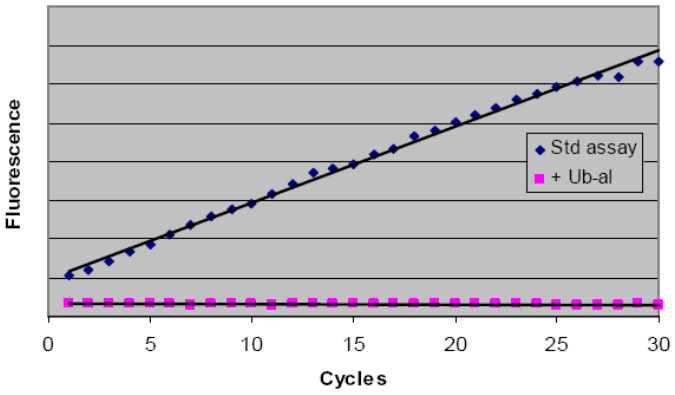

Figure 2: Typical DUB Assay.**Method:** 12.5nM UCH-L1 (PGP9.5) (human) (recombinant) (His) (Prod. No. BML-UW9740); 500nM Ubiquitin-AMC; 500nM Ubiquitin Aldehyde (recombinant); 50mM HEPES pH7.8, 0.5mM EDTA, 1mM DTT.”””,Ubiquitin aldehyde

Figure 1: Typical HPLC analysis of Ubiquitin Aldehyde (recombinant) (Prod. No. BML-UW8450). **Method:** Column: VYDAC 218TP54; A: 0.1% TFA/H2O; B: 0.1% TFA/CH3CN; Gradient: 25-45% B/20 mins. Monitoring: 230nm.

Handling & Storage

Handling	Do not neutralise until immediateley prior to use. Do not lyophilize. Avoid presence of amino-containing compounds. Soluble and stable in aqueous solution at pH <7.0.
Long Term Storage	+4°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Activity	Ubiquitin Aldehyde (recombinant) activity was confirmed by its inhibition of UCH-L3 (BML-UW9745) and USP2 (BML-UW9850) deubiquitinylation of Ubiquitin-AMC (BML-SE211).
Alternative Name	Ub-H
Application Notes	Ubiquitin Aldehyde (recombinant) is useful in the stabilisation of ubiquitin-protein conjugates in vitro, enhancing their accumulation in cell lysates and tissue extracts. Inhibition of deubiquitinylating enzyme activity by Ubiquitin Aldehyde (recombinant) can be used to identify and confirm such activity and to determine the inhibition kinetics for a particular enzyme. Recommended concentration for maximal inhibition is 2-5µM. Co-crystallisation of ubiquitin aldehyde with specific deubiquitinylating enzymes (the inhibitor mimics the natural ubiquitin substrate) has also been used to probe enzyme:substrate interactions.
Formulation	Liquid. In aqueous solution containing 0.15M HCl.
MW	8.5kDa
Purity	≥95% (HPLC)
Quality Control	Ubiquitin Aldehyde (recombinant) activity was confirmed by its inhibition of human UCH-L1 and deubiquitinylation of Ubiquitin-AMC (Prod. No. BML-SE211).

Sequence	Recombinant Ubiquitin (corresponding to UniProt sequence P62988). The C-terminal glycine carboxyl is synthetically modified to an aldehyde.
Source	Produced in *E.coli.*
Specific Activity	Ki=2.5nM vs. UCH isopeptidase-T.
Technical Info / Product Notes	**Typical assay set-up:** Substrate concentration: 0.01-1.0µM. Enzyme concentration, UCH-L1 (human) (recombinant) (His) (BML-UW9740): 10-100nM. Inhibitor concentration: 0.01-1.0µM. Release of AMC fluorescence by DUB enzymes can be monitored using 380nm excitation and 460nm emission wavelengths.
UniProt ID	P0CG47 (UBB), P0CG48 (UBC), P62979 (RPS27A), P62987 (UBA52)

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