

Linear polyubiquitin chains, sampler pack

Sampler pack for use in deubiquitinating enzyme assays and linear polyubiquitin binding studies.

The post-translational modification of proteins with polyubiquitin chains occurs in a wide range of signalling pathways and is tightly regulated in order to ensure cellular homeostasis. The function, processing and ultimate fate of polyubiquitinated proteins is thought to be determined by the nature of the linkage between adjacent ubiquitin molecules in the polyubiquitin chain.

In addition to lysine-linked polyubiquitin chains the amino terminus of ubiquitin can be used to form head-to-tail polyubiquitin chains, in which the C-terminal Gly of one ubiquitin is conjugated to the N-terminal Met of an adjacent ubiquitin. Such linear polyubiquitin chains are structurally similar to Lys63-linked polyubiquitin, despite the chemical differences between the two linkage types.

Several ubiquitin polygenes are encoded in eukaryotic cells and undergo post-translational processing to generate the cellular source of free ubiquitin monomers. However, linear polyubiquitin chains, in which the C-terminal Gly of one ubiquitin is conjugated to the N-terminal Met of an adjacent ubiquitin, have been shown to be assembled in vitro by an E3 ligase complex, known as the linear ubiquitin chain assembly complex (LUBAC), and ubiquitin binding domains (UBDs) with a preference for linear polyubiquitin have been identified in a number of proteins. A possible role for linear polyubiquitin modification in NF- κ B pathway activation, involving linear polyubiquitinylation of NEMO, has also been reported.

Such observations suggest that linear polyubiquitin modification of proteins may play an important role in cellular processes in addition to that of lysine-linked polyubiquitin protein conjugation.

Citations: 4

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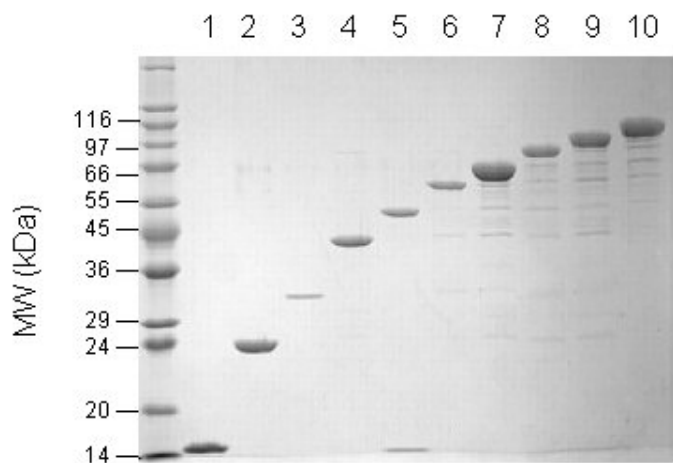
Ordering Information

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BML-UW0825-0001	1Pack
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Manuals, SDS & CofA

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SDS-PAGE comparison of linear polyubiquitin chains
(2µg/lane).

Lane 1: Ub₂ ([BML-UW0775](#))

Lane 2: Ub₃ (BML-UW0780)

Lane 3: Ub₄ (BML-UW0785)

Lane 4: Ub₅ (BML-UW0790)

Lane 5: Ub₆ (BML-UW0795)

Lane 6: Ub₇ (BML-UW0800)

Lane 7: Ub₈ (BML-UW0805)

Lane 8: Ub₉ (BML-UW0810)

Lane 9: Ub₁₀ (BML-UW0815)

Lane 10: Ub₁₁ (BML-UW0820)''''''''''

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Stable for at least 12 months after receipt when stored at -20°C.
Handling	Avoid freeze/thaw cycles. After opening, prepare aliquots and store at -20°C.
Short Term Storage	-20°C
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application Notes For use in deubiquitinating enzyme assays and linear polyubiquitin binding studies.

Concentration 1mg/ml, except Ub4 and Ub6 which are supplied at 0.5mg/ml

Contents

Name	Prod. No.	Amount	Mol. Weight
Di-ubiquitin (Ub ₂) (linear)	BML-UW0775	25µg	17.1kDa
Tri-ubiquitin (Ub ₃) (linear)	BML-UW0780	25µg	25.7kDa
Tetra-ubiquitin (Ub ₄) (linear)	BML-UW0785	25µg	34.2kDa
Penta-ubiquitin (Ub ₅) (linear)	BML-UW0790	25µg	42.8kDa
Hexa-ubiquitin (Ub ₆) (linear)	BML-UW0795	25µg	51.3kDa
Hepta-ubiquitin (Ub ₇) (linear)	BML-UW0800	25µg	59.8kDa
Octa-ubiquitin (Ub ₈) (linear)	BML-UW0805	25µg	68.4kDa
Nona-ubiquitin (Ub ₉) (linear)	BML-UW0810	25µg	76.9kDa
Deca-ubiquitin (Ub ₁₀) (linear)	BML-UW0815	25µg	86.5kDa
Undeca-ubiquitin (Ub ₁₁) (linear)	BML-UW0820	25µg	94.0kDa

Formulation Liquid. In 50mM TRIS, pH 8.0, containing 50mM sodium chloride.

Purity ≥90% (SDS-PAGE)

Source Produced in *E. coli*.



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