M1 Tetra-Ubiquitin

Cat. No. SBB-UP0119
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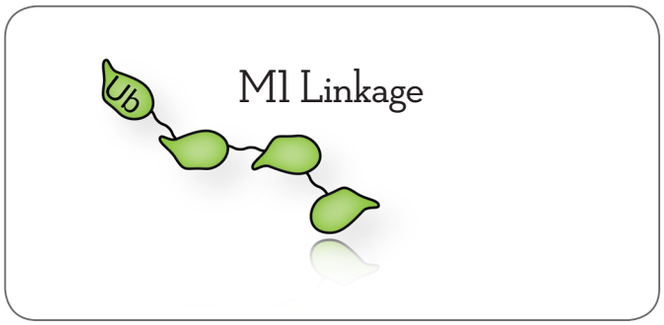
South Bay Bío

M1 Tetra-Ubiquitin

The array of cellular processes initiated and regulated by ubiquitin has been partially explained by the structural diversity of differently linked ubiquitin chains. In a ubiquitin chain, ubiquitin moieties can be conjugated through one of their lysine residues (K6, K11, K27, K29, K33, K48 and K63) or the N-terminal methionine residue (M1), offering countless possibilities to assemble a specific polymer. Ubiquitin molecules can also be modified by other post-translational modifications, including acetylation and phosphorylation, adding another layer of ubiquitin signal regulation and diversification.

M1-linked chains – play critical roles in inflammatory and immune responses by regulating the activation of NF-κB. Activated cytokine receptors and toll-like receptors (TLRs) recruiting e.g. kinases and E3 ubiquitin ligases, and resultant phosphorylation and ubiquitylation lead to the activation of effector proteins. This M1-linked linear di-ubiquitin was enzymatically conjugated, and purified via liquid chromatography.



References

1) Dikic, I., Wakatsuki, S., & Walters, K. J. (2009). Ubiquitin-binding domains – from structures to functions. Nature Reviews Molecular Cell Biology, 10(10), 659–671. https://doi.org/10.1038/nrm2767

2) Akutsu, M., Dikic, I., & Bremm, A. (2016). Ubiquitin chain diversity at a glance. Journal of Cell Science, 129(5), 875–880. https://doi.org/10.1242/jcs.183954

Product Information

Quantity: 25 µg **Molecular Weight:** 34 kDa

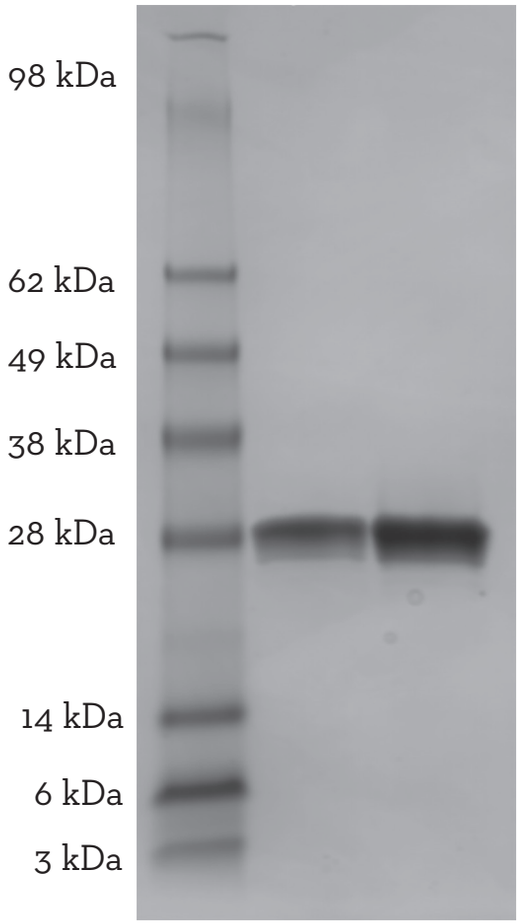
Concentration: 29 µM, 1 mg/mL

Purity: >95% by SDS-PAGE

Storage Buffer: 50 mM HEPES pH 7.5

Storage: -80C, Avoid multiple freeze / thaw

Quality Control and Performance Data



M1-Linked Tetra-Ubiquitin SDS-PAGE. From left to right, increasing amounts of tetra-ubiquitin were loaded onto a 10-20% SDS-PAGE gel, stained with Coomassie brillant blue. Purity is > 95%.

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