M1 TUBE (His6)

Cat. # UM206

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Background

Based on protein domains known to possess an affinity for ubiquitin, Tandem Ubiquitin Binding Entities (TUBEs) have been developed for the isolation and identification of ubiquitinated proteins. TUBEs display up to a 1000-fold increase in affinity for poly-ubiquitin moieties over the single ubiquitin binding associated domain (UBA). In addition, TUBEs display a protective effect on polyubiquitinated proteins, allowing for detection at relatively low abundance. These properties effectively "capture" protein in its polyubiquitin state.

Our anti-M1 (linear) TUBE has high selectivity for M1-linked polyubiquitin over the more common K48- and K63-linked polyubiquitin chains, making it a powerful tool for studying the biological consequences of this ubiquitin linkage type.

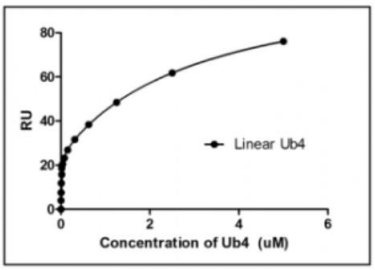
Application(s)

- Isolation and enrichment of M1-polyubiquitinated proteins from cell and tissue extracts
- Isolation of ubiquitinated proteins for proteomic studies

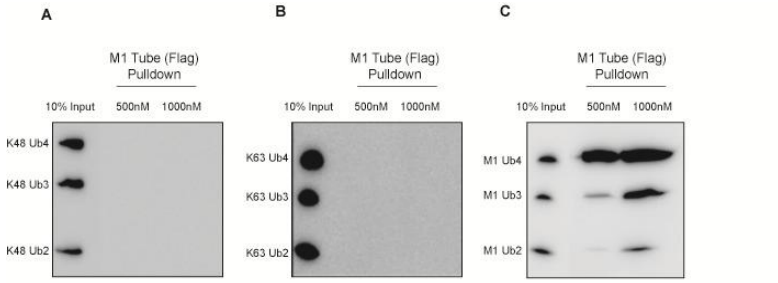
Product Specifications

Affinity Tag	His_6
Purity	> 90% by SDS-PAGE
Molecular Weight	33.4 kDa
Quantity	50 µg
Expression System	*E. coli*
Physical State	Liquid
Buffer	PBS, pH 7.2; 5% glycerol
Solubility	> 30 mg/ml
Concentration	Variable, depending on lot number
Stability & Storage	Over 1 year at -80℃. Avoid repeated freeze/thaw cycles

Product QC



Anti-M1 (Linear) TUBEs show a strong affinity for M1 ubiquitin (KD ~15nM) as measured by SPR.



M1 (Linear) TUBE shows strong specificity. Mix of different Ub chains were pulled down using either 500 nM or 1000 nM of M1-TUBE, and the western blot was probed with anti-Ubiquitin antibody (VU1 clone, cat # VU101). Only M1-Linked polyubiquitin chains (C) were pulled down with the M1 TUBE, and not K48- (A) or K63-linked ployubiquitin (B).

References

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