K48 TUBE HF (Magnetic Beads)

Cat. # UM407M

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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 polyubiquitin 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" proteins in their polyubiquitinated state.

K48 TUBE HF was developed to show enhanced selectivity for K48-linked polyubiquitin chains (~20 nM) over all other linkages (>2 µM). It can be used alone or in conjunction with our other TUBE products, especially K63 TUBE and M1 (linear) TUBE to investigate polyubiquitin chain linkages in your substrate protein.

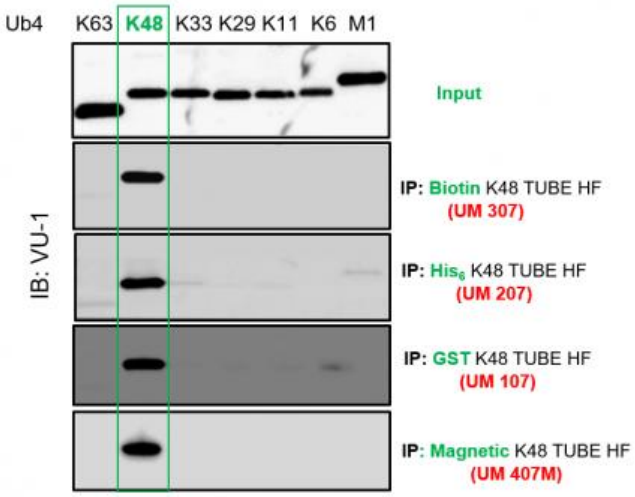
Application(s)

1. Isolation and enrichment of K48-polyubiquitinated proteins from cell and tissue extracts
2. Isolate K48-polyubiquitinated proteins for proteomic studies

Product Specifications

Tag	None
Purity	≥ 95% by RP-HPLC
Quantity	1ml
Expression System	*E. coli*
Physical State	Liquid
Buffer	PBS 7.2, 20% Ethanol
Stability & Storage	≥1 year at +4°C. Avoid freezing

Product QC



References

1. Stormo, Adrienne ED, Farbod Shavarebi, Molly FitzGibbon, Elizabeth M. Earley, Hannah Ahrendt, Lotus S. Lum, Erik Verschueren et al 2022) "The E3 ligase TRIM1 ubiquitinates LRRK2 and controls, its localization, degradation, and toxicity." Journal of Cell Biology 221, no. 4.
2. Hark, Timothy J., Nalini R. Rao, Charlotte Castillon, Tamara Basta, Samuel Smukowski, Huan Bao, Arun Upadhyay et al. (2021) "Pulse-chase proteomics of the App knockin mouse models of Alzheimer's disease reveals that synaptic dysfunction originates in presynaptic terminals." Cell systems 12, no. 2: 141-158.