

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.

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

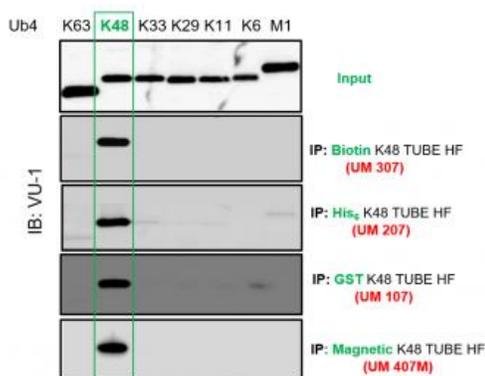
Application(s)

- Pull down of poly-ubiquitinated proteins from cell lines, tissues, and organs
- Protection of poly-ubiquitinated proteins from both deubiquitylation and degradation by the proteasome

Product Specifications

Affinity Tag	GST
Purity	> 95% by RP-HPLC and SDS-PAGE
Molecular Weight	34.6 kDa
Quantity	50 μ g and 250 μ g
Expression System	<i>E. coli</i>
Physical State	Liquid
Buffer	PBS, pH 7.2
Solubility	> 30 mg/ml
Concentration	Variable, depending on lot number
Stability & Storage	Over 1 year at -80°C. Avoid repeated freeze/thaw cycles

Product QC



References

1. Garadi Suresh H et al., Mol Cell, 2024;84(12):2337-2352
2. Chen X., et al., Cell, 2023;186 (18):3903-3920.e21.
3. Reynolds SD., et al., JCI Insight, 2022;7(15): e157380.
4. Kadimisetty K., et al., Methods Mol Biol, 2021;2365:185-202.

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