GST-TUBE2

Cat. # UM102

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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.

TUBE 2 is based on UBA1 from human RAD23A. The affinity of TUBE 2 for K63 linked tetra-ubiquitin and K48 tetra-ubiquitin linked chains is equivalent.

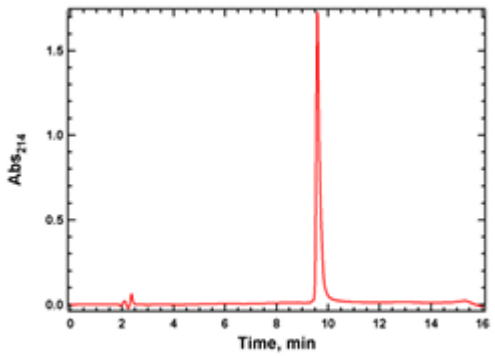
Application

- 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	56,476 Da
Quantity	200 µg and 1 mg
Expression System	*E. Coli*
Physical State	Liquid
Buffer	50 mM HEPES (pH 7.5), 150 mM NaCl, 10% 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



RP-HPLC

References

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2. Chen X., et al., Cell, 2023;186 (18):3903-3920.e21.
3. Reynolds SD., et al., JCI Insight, 2022;7(15): e157380.
4. Lopitz-Otsoa., et al., J Proteomics, 2012; 75, 2998-3014.
5. Kadimisetty K., et al., Methods Mol Biol, 2021;2365:185-202.