

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 detection at relatively low abundance. TUBEs effectively "capture" proteins in their polyubiquitinated state. [Biotin K63-TUBE 1](#) binds K63-linked polyubiquitin with a 1000 to 10,000-fold preference for K63 over other linkage types and provides a sensitive and cost-effective tool for determining the abundance of K63-linked polyubiquitin in the cell or identifying the linkage-type associated with a particular protein of interest. Biotin K63-TUBE 1 consists of multiple ubiquitin-interacting motifs separated by rigid linkers. This TUBE is useful for detection and characterization of K63-linked polyubiquitinated proteins by Far Western blotting, affinity purification from lysates and biological fluids, and in situ detection.

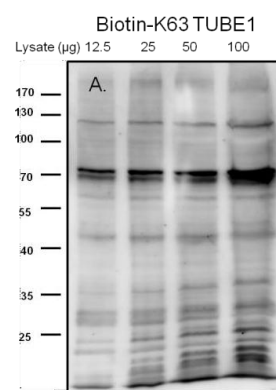
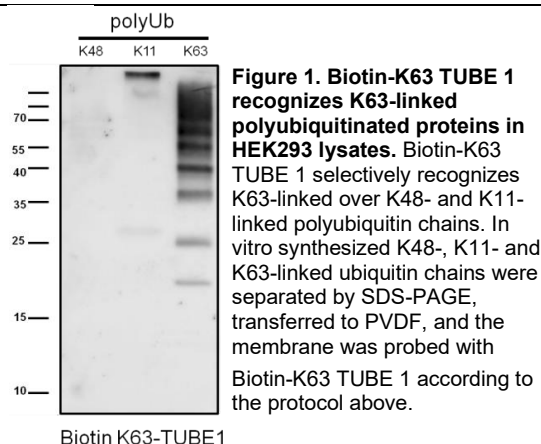
Application(s)

- Detection of K63-linked polyubiquitinated proteins by ligand (far-western) blotting
- Identification of the polyubiquitin linkage type of your protein of interest
- Inhibition of K63-dependent processes in lysates
- Purification of K63-linked polyubiquitinated proteins from cell and tissue lysates using avidin supports
- In situ labeling for detection of K63-linked polyubiquitinated proteins by histochemistry

Product Specifications

Affinity Tag	Biotin (1-2 per molecule)
Purity	≥ 90% by SDS-PAGE
Molecular Weight	22 kDa
Quantity	50 µg
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



All products are for research use only • Not intended for human or animal diagnostic or therapeutic uses
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K63 TUBE, Biotin

Cat. # UM304

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.

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