

## Magnetic Beads-TUBE1

Cat. # UM401M

**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 ubiquitylated 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 polyubiquitylated proteins, allowing for detection at relatively low abundance. These properties effectively "capture" protein in its polyubiquitin state.

The affinity of TUBE 1 for K63 linked tetra-ubiquitin is approximately 10-fold higher than for K48 linked chains.

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

### Product Information

<b>Affinity tag:</b>	N/A
<b>Purity:</b>	(prior to coupling) > 95% by SDS-PAGE
<b>Molecular Weight:</b>	not applicable
<b>Physical State:</b>	Liquid
<b>Quantity:</b>	1mL magnetic beads
<b>Solubility:</b>	not applicable
<b>Storage:</b>	+4 °C. Avoid storage at lower temperatures.

### References

1. Stormo, Adrienne ED, Farbod Shavarebi, Molly FitzGibbon, Elizabeth M. Earley, Hannah Ahrendt, Lotus S. Lum, Erik Verschuere et al (2022) "The E3 ligase TRIM1 ubiquitinates LRRK2 and controls its localization, degradation, and toxicity." *Journal of Cell Biology* 221, no. 4.
2. Hatstat, A. Katherine, Hannah D. Ahrendt, Matthew W. Foster, Leland Mayne, M. Arthur Moseley, S. Walter Englander, and Dewey G. McCafferty. (2021) "Characterization of small-molecule-induced changes in Parkinson's-related trafficking via the Nedd4 ubiquitin signaling cascade." *Cell Chemical Biology* 28, no. 1: 14-25.

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