

Magnetic Beads-TUBE2

Cat. # UM402M

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 solution phase TUBE 2 for K63 linked tetra-ubiquitin is approximately equal to K48 linked tetra-ubiquitin (5-10nM). High efficiency coupling of TUBE2 to agarose is through a HIS6-SUMO tag, avoiding modification of the UBA domains.

- 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

Affinity tag:	N/A
Purity:	(prior to coupling) > 95% by SDS-PAGE
Molecular Weight:	not applicable
Physical State:	Liquid
Quantity:	1mL magnetic beads
Solubility:	not applicable
Storage:	+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 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. Wolf, Lucie M., Annika M. Lambert, Julie Haenlin, and Michael Boutros. (2021) "EVI/WLS function is regulated by ubiquitylation and is linked to ER-associated degradation by ERLIN2." Journal of cell science 134, no. 16: jcs257790.