Anti-Ub TUBE1, Biotin

Cat. # UM301

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 polyubiquitinated proteins, allowing for detection at relatively low abundance. These properties effectively "capture" proteins in their polyubiquitylated state.

Biotin-TUBEs allow for the detection of polyubiquitin and polyubiquitylated proteins by ligand blotting ("far Western") without heating the membrane. This reagent is a superior alternative to traditional polyubiquitin immunodetection techniques, such as anti-ubiquitin IgGs.

Application:

- Detection of polyubiquitylated proteins by ligand blotting
- Pull down of polyubiquitylated proteins from cell lines, tissues and organs using a variety of readily available avidin supports
- *In situ* labeling for detection of polyubiquitin by histochemistry

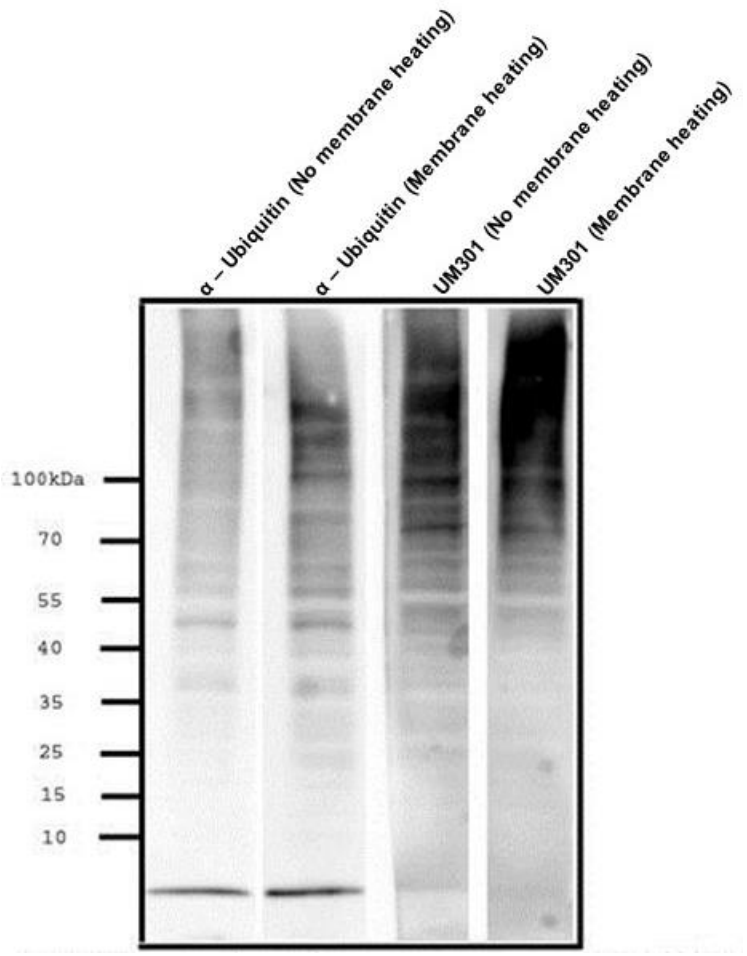
Product Information

Purity:	>95% by SDS-PAGE
Molecular Weight:	38 kDa + Biotin
Tag:	Biotin
Physical State:	Liquid
Quantity:	200 μg
Storage:	-80° C. Avoid repeated freeze/thaw cycles

References

Donaghy, Ryan, et al. "The BRISC deubiquitinating enzyme complex limits hematopoietic stem cell expansion by regulating JAK2 K63-ubiquitination." *Blood*, vol. 133, no. 14, 2019, pp. 1560-1571.

Lv, Kaosheng, et al. "CBL family E3 ubiquitin ligases control JAK2 ubiquitination and stability in hematopoietic stem cells and myeloid malignancies." *Genes & Development,* vol. 31, 2017, pp. 1007-1031.



Approximately 40 µg of protein from Neuro 2A cells was subjected to SDS-PAGE, prior to electrophoretic transfer. Probing with α-ubiquitin was performed without / with pre-treatment of membrane with heat. Similarly, we have probed the cellular lysates with biotinylated TUBE1 at 1:1000 dilution with no prior heating of the membrane along with pre-heating. As seen in the image above UM301 performed superior in detecting poly-ubiquitination with both heating and no heating of the membrane compared to leading α-ubiquitin antibody.
