Revision 1

Store at -20C

#14526

UBQLN1 (D3T7F) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H Mk	Endogenous	66	Rabbit IgG	#Q9UMX0	29979

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

UBQLN1 (D3T7F) Rabbit mAb recognizes endogenous levels of total UBQLN1 protein. This antibody does not cross-react with other UBQLN proteins.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human UBQLN1 protein.

Background

Ubiquilin 1 (UBQLN1) is a ubiquitously expressed, type 2 ubiquitin like (UBL) protein that contains an amino-terminal UBL domain and a carboxy-terminal Ub-associated (UBA) domain (1). Research studies demonstrate that UBQLN1 associates with poly-Ub chains through its UBA domain, while the UBL domain participates in interactions with proteasome subunits. Evidence suggests that UBQLN1 acts as a shuttling factor during endoplasmic-reticulum-associated protein degradation (ERAD) as it transports misfolded, ubiquitinated proteins from the ER to the proteasome for subsequent degradation (2-5). Additional research studies demonstrate that the UBL domain of UBQLN1 binds UIM-containing endocytic proteins and participates in the sequestration of protein aggregates during aggresome formation (6,7). UBQLN1 regulates presenilin protein levels and is localized in neurofibrillary tangles of Alzheimer's disease-affected brains (8). Polymorphisms in the corresponding *UBQLN1* gene may be associated with a risk of Alzheimer's disease (9-11).

Background References

1. Hanaoka, E. et al. (2000) *J Hum Genet* 45, 188-91.
2. Ko, H.S. et al. (2004) *FEBS Lett* 566, 110-4.
3. Lim, P.J. et al. (2009) *J Cell Biol* 187, 201-17.
4. Kleijnen, M.F. et al. (2000) *Mol Cell* 6, 409-19.
5. Zhang, D. et al. (2008) *J Mol Biol* 377, 162-80.
6. Heir, R. et al. (2006) *EMBO Rep* 7, 1252-8.
7. Regan-Klapisz, E. et al. (2005) *J Cell Sci* 118, 4437-50.
8. Mah, A.L. et al. (2000) *J Cell Biol* 151, 847-62.
9. Yue, Z. et al. (2014) *Int J Neurosci* [Epub ahead of print].
10. Viswanathan, J. et al. (2011) *Traffic* 12, 330-48.
11. Bertram, L. et al. (2005) *N Engl J Med* 352, 884-94.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **Mk:** Monkey

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