Revision 1

#34945 Store at -20C

# ETEA/UBXD8 (D8H6D) Rabbit mAb

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|---|
| WB, IP | H M R | Endogenous | 53 | Rabbit IgG | #Q96CS3 | 23197 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Western Blotting | 1:1000 |
| Immunoprecipitation | 1:200 |

## 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

ETEA/UBXD8 (D8H6D) Rabbit mAb recognizes endogenous levels of total ETEA/UBXD8 protein.

## Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly430 of human ETEA/UBXD8 protein.

## Background

Ubiquitin regulatory X domain-containing protein 8 (UBXD8, also known as ETEA and FAF2) is a hairpin-anchored endoplasmic reticulum (ER) protein involved in ER associated degradation (ERAD). It influences this process by promoting translocation of misfolded proteins from the ER lumen to the cytoplasm for proteasome-mediated degradation (1). UBXD8 is a sensor for unsaturated fatty acids. In the absence of fatty acids UBXD8 binds to and targets INSIG1 for degradation, ultimately resulting in activation of SREBP-1. Under this condition, UBXD8 also inhibits triglyceride synthesis by blocking the conversion of diacylglycerols into triglycerides. Unsaturated fatty acids trigger UBXD8 polymerization and dissociation of UBXD8/INSIG1 complex, leading to feedback inhibition of SREBP-1 (2, 3). This induces UBXD8 to translocate from the ER to lipid droplets, where it binds to ATGL and inhibits its lipase activity (4, 5). The complex containing p97 and UBXD8 is reported to promote disassembly of the ribonucleoprotein complex to control mRNA stability (6). In addition, UBXD8 binds to and promotes degradation of neurofibromin (NF1), suggesting a role in regulating Ras activity (7).

## Background References

1. Mueller, B. et al. (2008) *Proc Natl Acad Sci U S A* 105, 12325-30.
2. Lee, J.N. et al. (2008) *J Biol Chem* 283, 33772-83.
3. Lee, J.N. et al. (2010) *Proc Natl Acad Sci U S A* 107, 21424-9.
4. Zehmer, J.K. et al. (2009) *J Cell Sci* 122, 3694-702.
5. Olzmann, J.A. et al. (2013) *Proc Natl Acad Sci U S A* 110, 1345-50.
6. Zhou, H.L. et al. (2013) *Genes Dev* 27, 1046-58.
7. Phan, V.T. et al. (2010) *Mol Cell Biol* 30, 2264-79.

## 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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

## Applications Key

**WB:** Western Blotting **IP:** Immunoprecipitation

## Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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