

TECPR1 (D6C10) Rabbit mAb

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| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---------------|-------------|--------------|-----------|-----------------|-------------|-----------------|
| W | H M R | Endogenous | 130 | Rabbit IgG | #Q7Z6L1 | 25851 |

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

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

TECPR1 (D6C10) Rabbit mAb recognizes endogenous levels of total TECPR1 protein. This antibody does not cross-react with TECPR2. A background band of unknown origin around 200 kDa is detected in some cell lines.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding His900 of human TECPR1 protein.

Background

Tectonin β -propeller repeat protein (TECPR1) was first identified as DKFZP434B0335, a human ortholog of the yeast protein Pex23p (1). TECPR1 contains a pleckstrin homology (PH) domain, β -propeller domain, and dysferlin domains. Research studies have shown that elevated expression of TECPR1 may be a potential marker for prostate cancer (2). In several independent studies, TECPR1 was shown to play a role in autophagy through interaction with Atg5 (3-5). Atg5 is a protein that is conjugated to the ubiquitin-like protein Atg12 and plays an essential role in autophagy (6). Initial studies suggested that TECPR1 plays a role in selective autophagy processes by targeting bacterial pathogens, as well as damaged mitochondria and protein aggregates (4). TECPR1 appears to be important for autophagosome maturation and promotes autophagosome fusion with the lysosome (5). Deletion of TECPR1 leads to an accumulation of autophagosomes (5).

Background References

1. Jeynov, B. et al. (2006) *FEBS Lett* 580, 5917-24.
2. Bull, J.H. et al. (2001) *Br J Cancer* 84, 1512-9.
3. Behrends, C. et al. (2010) *Nature* 466, 68-76.
4. Ogawa, M. et al. (2011) *Cell Host Microbe* 9, 376-89.
5. Chen, D. et al. (2012) *Mol Cell* 45, 629-41.
6. Mizushima, N. et al. (1998) *Nature* 395, 395-8.

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

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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