Revision 1

Store at -20C

#42328

EI24 (D3F6Z) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R	Endogenous	30	Rabbit IgG	#O14681	9538

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

EI24 (D3F6Z) Rabbit mAb recognizes endogenous levels of total EI24 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala31 of human EI24 protein.

Background

Etoposide-induced 2.4 mRNA (EI24)/p53-induced gene 8 (PIG8) was identified as a DNA damage response gene induced by etoposide in a p53 dependent manner with roles in growth suppression and apoptosis (1-3). As a pro-apoptotic gene, some evidence suggests that EI24 functions as a tumor suppressor gene in cases such as breast and cervical cancer (4-6). The mechanism of EI24 is still unclear, but studies have shown that it can localize to the endoplasmic reticulum and associate with Bcl-2 and could regulate apoptosis through regulation of Bcl-2 function (7). Liver-specific deletions of EI24 in mice show impaired autophagic flux, suggesting that it may also play a role in regulating basal autophagy (8). EI24 was shown to be involved in the autophagic degradation of many RING E3 ligases (9). In addition, decreased expression of EI24 in epithelial tumor cells induced epithelial-to-mesenchymal transition (EMT) (10). Together these studies suggest multiple mechanisms for EI24 to regulate tumor progression that includes regulation of apoptosis, autophagy, and EMT.

Background References

1. Polyak, K. et al. (1997) *Nature* 389, 300-5.
2. Lehar, S.M. et al. (1996) *Oncogene* 12, 1181-7.
3. Gu, Z. et al. (2000) *Mol Cell Biol* 20, 233-41.
4. Gentile, M. et al. (2001) *Oncogene* 20, 7753-60.
5. Sinha, S. et al. (2011) *Mol Oncol* 5, 454-64.
6. Mazumder Indra, D. et al. (2011) *Int J Cancer* 129, 1859-71.
7. Zhao, X. et al. (2005) *Cancer Res* 65, 2125-9.
8. Zhao, Y.G. et al. (2012) *J Biol Chem* 287, 42053-63.
9. Devkota, S. et al. (2016) *Autophagy* 12, 2038-2053.
10. Choi, J.M. et al. (2013) *Oncotarget* 4, 2383-96.

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 **M:** Mouse **R:** Rat

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Limited Uses

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