

WIP1 (D4F7) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	79	Rabbit IgG	#O15297	8493

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

WIP1 (D4F7) Rabbit mAb recognizes endogenous levels of total WIP1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly240 of human WIP1 protein.

Background

Wild-type p53 induced phosphatase 1 (WIP1)/protein phosphatase magnesium-dependent 1 delta (ppm1d) is a member of the PP2C family of serine/threonine protein phosphatases. WIP1 was initially identified as a p53 target gene, induced in response to ionizing radiation (1). Studies have shown that WIP1 is overexpressed in human cancers and is involved in the regulation of multiple DNA damage signaling pathways (reviewed in 2,3). WIP1 functions in returning cells to a homeostatic state following DNA damage (4,5), as well as in maintaining p53-dependent homeostasis under non-stressed conditions (6). Researchers have shown that increased expression of WIP1 is associated with poor prognosis and lower survival rate in some human cancers (7,8). In contrast, overexpression of WIP1 in p53-negative tumor cells sensitizes them to chemotherapy-induced apoptosis while protecting normal tissue during treatment (9).

Background References

1. Fiscella, M. et al. (1997) *Proc Natl Acad Sci U S A* 94, 6048-53.
2. Zhu, Y.H. and Bulavin, D.V. (2012) *Prog Mol Biol Transl Sci* 106, 307-25.
3. Lu, X. et al. (2008) *Cancer Metastasis Rev* 27, 123-35.
4. Lu, X. et al. (2005) *Genes Dev* 19, 1162-74.
5. Cha, H. et al. (2010) *Cancer Res* 70, 4112-22.
6. Park, H.K. et al. (2011) *Cell Cycle* 10, 2574-82.
7. Liang, C. et al. (2012) *Brain Res* 1444, 65-75.
8. Satoh, N. et al. (2011) *Cancer Sci* 102, 1101-6.
9. Goloudina, A.R. et al. (2012) *Proc Natl Acad Sci U S A* 109, E68-75.

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 **Mk:** Monkey

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