Revision 1

Store at -20C

#9583

PTEN (138G6) Rabbit mAb (Biotinylated)

Cell Signaling TECHNOLOGY®

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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 Mk	Endogenous	54	Rabbit IgG	#P60484	5728

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

Storage

Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at –20°C. Do not aliquot the antibodies.

Specificity / Sensitivity

PTEN (138G6) Rabbit mAb (Biotinylated) detects endogenous levels of total PTEN protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the carboxy-terminal sequence of human PTEN.

Product Description

This Cell Signaling Technology antibody is conjugated to biotin under optimal conditions. The unconjugated PTEN (26H9) Mouse mAb #9556 reacts with human, mouse, rat, monkey and hamster PTEN. CST expects that PTEN (138G6) Rabbit mAb (Biotinylated) will also recognize PTEN in these species.

MW (kDa)	54

Background

PTEN (phosphatase and tensin homologue deleted on chromosome ten), also referred to as MMAC (mutated in multiple advanced cancers) phosphatase, is a tumor suppressor implicated in a wide variety of human cancers (1). PTEN encodes a 403 amino acid polypeptide originally described as a dual-specificity protein phosphatase (2). The main substrates of PTEN are inositol phospholipids generated by the activation of the phosphoinositide 3-kinase (PI3K) (3). PTEN is a major negative regulator of the PI3K/Akt signaling pathway (1,4,5). PTEN possesses a carboxy-terminal, noncatalytic regulatory domain with three phosphorylation sites (Ser380, Thr382, and Thr383) that regulate PTEN stability and may affect its biological activity (6,7). PTEN regulates p53 protein levels and activity (8) and is involved in G protein-coupled signaling during chemotaxis (9,10).

Background References

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2. Myers, M.P. et al. (1997) *Proc Natl Acad Sci USA* 94, 9052-7.
3. Myers, M.P. et al. (1998) *Proc Natl Acad Sci USA* 95, 13513-8.
4. Wan, X. and Helman, L.J. (2003) *Oncogene* 22, 8205-11.
5. Wu, X. et al. (1998) *Proc Natl Acad Sci USA* 95, 15587-91.
6. Vazquez, F. et al. (2000) *Mol Cell Biol* 20, 5010-8.
7. Torres, J. and Pulido, R. (2001) *J Biol Chem* 276, 993-8.
8. Freeman, D.J. et al. (2003) *Cancer Cell* 3, 117-30.
9. Funamoto, S. et al. (2002) *Cell* 109, 611-23.
10. Iijima, M. and Devreotes, P. (2002) *Cell* 109, 599-610.

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

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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Limited Uses