

#7960
Store at -20°C

Non-phospho PTEN (Ser380/Thr382/Thr383) (D2D11) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	55	Rabbit IgG	#P60484	5728

Product Usage Information	Application	Dilution
	Western Blotting	1:1000
	Immunoprecipitation	1:50
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	Non-phospho PTEN (Ser380/Thr382/Thr383) (D2D11) Rabbit mAb detects endogenous levels of PTEN protein only when dephosphorylated at Ser380, Thr382, and Thr383.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic non-phosphopeptide corresponding to residues surrounding Ser380/Thr382/Thr383 of human PTEN protein.	
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	<ol style="list-style-type: none"> 1. Cantley, L.C. and Neel, B.G. (1999) <i>Proc Natl Acad Sci USA</i> 96, 4240-5. 2. Myers, M.P. et al. (1997) <i>Proc Natl Acad Sci USA</i> 94, 9052-7. 3. Myers, M.P. et al. (1998) <i>Proc Natl Acad Sci USA</i> 95, 13513-8. 4. Wan, X. and Helman, L.J. (2003) <i>Oncogene</i> 22, 8205-11. 5. Wu, X. et al. (1998) <i>Proc Natl Acad Sci USA</i> 95, 15587-91. 6. Vazquez, F. et al. (2000) <i>Mol Cell Biol</i> 20, 5010-8. 7. Torres, J. and Pulido, R. (2001) <i>J Biol Chem</i> 276, 993-8. 8. Freeman, D.J. et al. (2003) <i>Cancer Cell</i> 3, 117-30. 9. Funamoto, S. et al. (2002) <i>Cell</i> 109, 611-23. 10. Iijima, M. and Devreotes, P. (2002) <i>Cell</i> 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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