

Non-phospho PTEN (Ser380/Thr382/Thr383) Antibody



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rev. 04/20/16

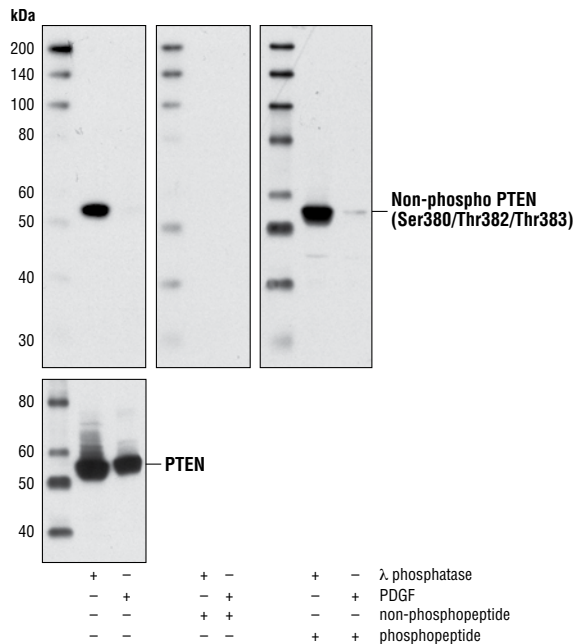
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Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	M, R, (H)	54 kDa	Rabbit**

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 level and activity (8) and is involved in G protein coupled signaling during chemotaxis (9,10).

Specificity/Sensitivity: Non-phospho PTEN (Ser380/Thr382/Thr383) Antibody detects endogenous levels of PTEN only when dephosphorylated at Ser380, Thr382 and Thr383.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser380/Thr382/Thr383 of human PTEN. Antibodies are purified by peptide affinity chromatography.



Western blot analysis of extracts from NIH/3T3 cells, λ phosphatase- or PDGF-treated, using Non-phospho-PTEN (Ser380/Thr382/Thr383) Antibody (upper) or PTEN (138G6) Rabbit mAb #9559 (lower). The non-phospho-specificity of the antibody was verified by preincubating the antibody with no peptide, with PTEN (Ser380/Thr382/Thr383) non-phosphopeptide or with PTEN (Ser380/Thr382/Thr383) phosphopeptide prior to incubating the membrane.

Entrez-Gene ID #5728
Swiss-Prot Acc. #P60484

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western Blotting	1:1000
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

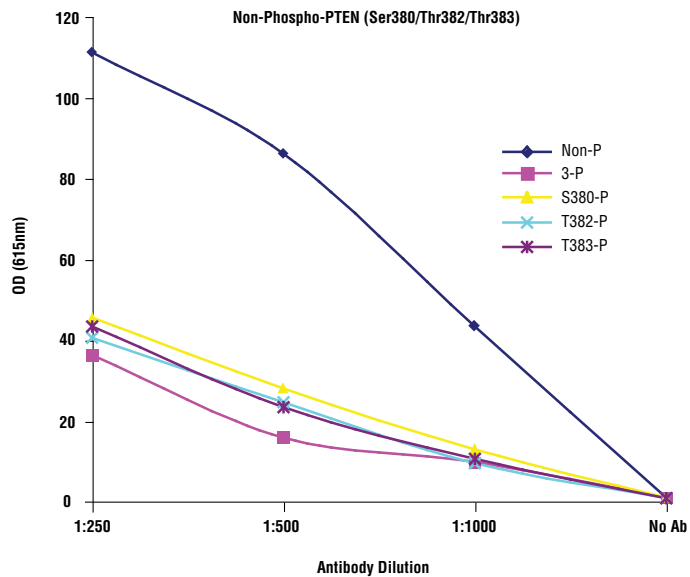
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IMPORTANT: For Western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry CHIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Non-phospho PTEN (Ser380/Thr382/Thr383) Antibody specificity was determined by peptide ELISA. The graphs depict the binding of the various dilutions of the antibody (1:250, 1:500, 1:1000, 0) to pre-coated tri-non-phospho PTEN (Ser380/Thr382/Thr383) peptide, tri-phospho PTEN (Ser380/Thr382/Thr383) peptide, phospho PTEN (Ser380) peptide, phospho PTEN (Thr382) peptide, and phospho PTEN (Thr383) peptide.