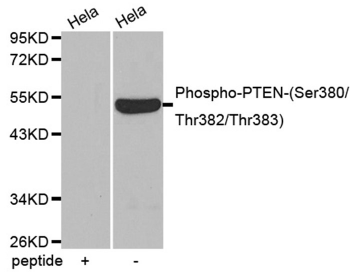
Product Data Sheet: Phospho-PTEN (S380/T382/T383)

Cat. No:	ABP-0141
Conjugate:	Unconjugated
Size:	100 ug
Clone:	Poly
Concentration:	1mg/ml
Host:	Rb
Isotype:	IgG
Reactivity:	Hu, Ms, Rt
Applications:	Western blotting 1:1000 IHC 1:50 – 1:100 IF 1:50 – 1:200
Molecular Weight:	54 kDa
Purification:	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser380, Thr382 and Thr383 of human PTEN.
Background:	PTEN (phosphatase and tensin homologue deleted on chromosome ten), also refered to as MMAC (mutated in multiple advanced cancers) phosphatase, is a tumor suppressor implicated in a wide variety of human cancers (1). PTEN encodes the 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 containing three phosphorylation sites (Ser380, Thr382 and Thr383), which regulates its stability and may play an important role in control of its biological activity (6,7). PTEN also regulates p53 protein levels and activity (8) and is involved in G protein coupled signaling during chemotaxis (9,10).Phospho-PTEN (Ser380/ Thr382/Thr383) Antibody detects endogenous levels of PTEN only when phosphorylated at Ser380, Thr382 and Thr383. Phospho-PTEN (Ser380/ Thr382/Thr383) Antibody detects endogenous levels of PTEN only when phosphorylated at Ser380, Thr382 and Thr383.
Form:	liquid
Buffer:	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage:	Store at –20°C. Avoid freeze / thaw cycles.



Western blot analysis of extracts of HeLa cell lines, using Phospho-PTEN (Ser380/Thr382/Thr383) antibody.

References

(1) Cantley, L.C. and Neel, B.G. (1999) Proc. Natl. Acad. Sci. USA 96, 4240–4245. (2) Myers, M.P. et al. (1997) Proc. Natl. Acad. Sci. USA 94, 9052–9057. (3) Myers, M.P. et al. (1998) Proc. Natl. Acad. Sci. USA 95, 13513–13518. (4) Wan, X. and Helman, L.J. (2003) Oncogene 22, 8205–8211. (5) Wu, X. et al. (1998) Proc. Natl. Acad. Sci. USA 95, 15587–15591. (6) Vazquez, F. et al. (2000) Mol. Cell. Biol. 20, 5010–5018. (7) Torres, J. and Pulido, R. (2001) J. Biol. Chem. 276, 993–998. (8) Freeman, D.J. et al. (2003) Cancer Cell 3, 117–130. (9) Funamoto, S. et al. (2002) Cell 109, 611–623. (10) Iijima, M. and Devreotes, P. (2002) Cell 109, 599–610.