Anti-PTEN Antibody [4D8]

RT1519

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IP, IF
Molecular Wt:	55kDa
Clone number:	4D8

Description: As human tumors progress to advanced stages, one genetic alteration that occurs at high frequency is a loss of heterozygosity (LOH) at chromosome 10q23.31. Mapping of homozygous deletions on this chromosome led to the isolation of the PTEN gene, also designated MMAC1 (for mutated in multiple advanced cancers) and TEP1. This candidate tumor suppressor gene exhibits a high frequency of mutations in human glioblastomas and is also mutated in other cancers, including sporadic brain, breast, kidney and prostate cancers.PTEN has been associated with Cowden disease, an autosomal dominant cancer predisposition syndrome. The PTEN gene product is a putative protein tyrosine phosphatase that is localized to the cytoplasm, and it shares extensive homology with the cytoskeletal proteins tensin and auxilin. Gene transfer studies have indicated that the phosphatase domain of PTEN is essential for growth suppression of glioma cells.

Immunogen: peptide

Positive control: Hela, A-431, KNRK.

Subcellular location: Cytoplasm, Nucleus

Database links: SwissProt: P60484 Human

Recommended Dilutions:

WB	1:1,000
IP	1-2 μg per 100-500 μg of total protein
IF	1:50-500

Storage Buffer: 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Storage Instruction: Store at +4℃

Purity: Protein A affinity purified.

Images

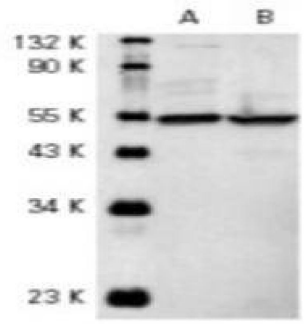

Fig1: Western blot analysis of PTEN expression in A-431 (A) and KNRK (B) whole cell lysates.

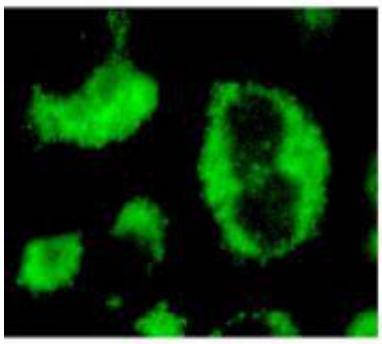

Fig2: Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Huang, J. and Kontos, C.D. 2002. PTEN modulates vascular endothelial growth factor-mediated signaling and angiogenic effects. J. Biol. Chem.277: 10760-10766.
2. Altomare, D.A., et al. 2002. Frequent activation of AKT2 kinase in human pancreatic carcinomas. J. Cell. Biochem. 87: 470-476.
3. Pernicová, Z., et al. 2011. Androgen depletion induces senescence in prostate cancer cells through down-regulation of Skp2. Neoplasia 13:526-536.
4. Lehman, J.A., et al. 2011. Induction of apoptotic genes by a p73-phosphatase and tensin homolog (p73-PTEN) protein complex in response to genotoxic stress. J. Biol. Chem. 286: 36631-36640