Data Sheet (Cat.No.TMAY-01655)

TargetMol

Anti-Phospho-PTEN (Ser380) Antibody (5A114)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human; Species predicted to react based on 100% sequence homology: mouse, rat, cynomolgus
Conjugation:	Unconjugated
Clone:	5A114
Purification:	Protein A

Applications

Verified Activity:	Western blot analysis of extracts from Hela, untreated (line A); treated with λ-phosphatase (line B) using Phospho-PTEN (Ser380) rabbit monoclonal Antibody at 1:1000 dilution. (We are unsure as to the identity of these extra bands.)
Application:	WB
Recommended	WB: 1:500-1:2000

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: residues around Ser380 of the Human Phospho-PTEN
Antigen Species:	Human
Synonyms:	CWS1;TEP1;p-PTEN (Ser380);PTENbeta;DEC;MMAC1;10q23del;MHAM;PTEN (p-Ser380);PTEN (p-S380);BZS;PTENgama;Phospho-PTEN (S380);GLM2;PTEN1;p-PTEN (S380)
Biology Area:	Phosphatases and Regulators, Tumor Suppressors, Cancer Drug Targets

Research Background

PTEN gene was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. The protein encoded by this gene is a phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase. It contains a tensin like domain as well as a catalytic domain similar to that of the dual specificity protein tyrosine phosphatases. Unlike most of the protein tyrosine phosphatases, this protein preferentially dephosphorylates phosphoinositide substrates. It negatively regulates intracellular levels of phosphatidylinositol-3,4,5-trisphosphate in cells and functions as a tumor suppressor by negatively regulating AKT/PKB signaling pathway. The use of a non-canonical (CUG) upstream initiation site produces a longer isoform that initiates translation with a leucine, and is thought to be preferentially associated with the mitochondrial inner membrane. This longer isoform may help regulate energy metabolism in the mitochondria. A pseudogene of this gene is found on chromosome 9. Alternative splicing and the use of multiple translations start codons results in multiple transcript variants encoding different isoforms.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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