

## PTEN Rabbit Monoclonal Antibody

### Catalog #: EAB21438

Host/Isotype	Clonality	Applications	MW (kDa)	Reactivity
Rabbit IgG	Monoclonal	WB, IHC-P, IF/ICC	47	Human, Mouse, Rat

### Applications Dilutions

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

WB(Western Blotting)	1:500-2000
IHC-P(Immunohistochemistry-Paraffin)	1:50-200
IF/ICC(Immunofluorescence/Immunocytochemistry)	1:50-200

### Product Information

Conjugate	Unconjugate
Specificity	PTEN Rabbit Monoclonal Antibody detects endogenous levels of PTEN protein.
Purification	Affinity purification
Concentration	1mg/ml
Format	Liquid
Formulation	In PBS, pH 7.4, Containing 0.02% sodium azide, 0.5% BSA and 50% Glycerol
Shipping	Gel Pack
Storage	Store at -20°C least 1 year from the date of shipment. Avoid repeated freeze/thaw cycles. Aliquots may be stored at +4°C for 1-2 weeks
UniProt ID	<a href="#">P60484</a>
Entrez-Gene Id	<a href="#">5728</a>

### Product Description

This 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 translation start codons results in multiple transcript variants encoding different isoforms.

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