



Anti-PTEN (aa 221-320) polyclonal antibody (DPAB-DC2574)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description	This gene was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. The protein encoded 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.
Immunogen	PTEN (AAH05821, 221 a.a. ~ 320 a.a) partial recombinant protein with GST tag. The sequence is KVKIYSSNSGPTRREDKFMFYFEFPQPLPVCEDIKVEFFHKQNKMLKKDKMFHFWVNTFFI PGPEETSEKVENGLCDQEIDSICSIERADNDKEYLVLT
Source/Host	Mouse
Species Reactivity	Human
Conjugate	Unconjugated
Applications	WB (Recombinant protein), ELISA,
Size	50 µl
Buffer	50 % glycerol
Preservative	None
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

GENE INFORMATION

Gene Name	PTEN phosphatase and tensin homolog [Homo sapiens (human)]
Official Symbol	PTEN
Synonyms	PTEN; phosphatase and tensin homolog; BZS; DEC; CWS1; GLM2; MHAM; TEP1; MMAC1; PTEN1; 10q23del; phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN; mitochondrial PTENalpha; phosphatase and tensin-like protein; mutated in multiple advanced cancers 1; mitochondrial phosphatase and tensin protein alpha; MMAC1 phosphatase and tensin homolog deleted on chromosome 10; phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN;
Entrez Gene ID	5728
Protein Refseq	NP_000305
UniProt ID	F6KD01
Chromosome Location	10q23.3
Pathway	3-phosphoinositide degradation; Adaptive Immune System; BCR signaling pathway; Constitutive PI3K/AKT Signaling in Cancer
Function	PDZ domain binding; anaphase-promoting complex binding; enzyme binding; inositol-1,3,4,5-tetrakisphosphate 3-phosphatase activity