

Recombinant Full Length Human Phosphatase And Tensin Homolog / PTEN Protein, GST-tagged

Cat. No. PTEN-1619H Lot. No. (See product label)

SPECIFICATION

Product Overview	Full-length recombinant human PTEN was expressed in E. coli cells using an N-terminal GST tag.
Species	Human
Source	E.coli
ProteinLength	1-403 a.a.
Description	PTEN is a tumor suppressor that is frequently mutated in a large number of cancers. PTEN has phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase activity and contains a tensin like domain as well as a catalytic domain similar to that of the dual specificity protein tyrosine phosphatases.
Applications	Phosphatase Assay; Western Blot
Molecular Weight	80 kDa
Expression System	E. coli
Form	Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, 25 % glycerol.
Specific Activity	435 nmol/min/mg

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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Purity	> 85 %
Concentration	0.1 ug/ul
Sequences	Full length
Storage	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Pathways	Endometrial cancer; Focal adhesion; Glioma; Inositol phosphate metabolism; Melanoma; Pathways in cancer; Phosphatidylinositol signaling; Prostate cancer; Small cell lung cancer; Tight junction; p53 signaling pathway; Signaling in Immune system; Signalling by NGF; PIP3 activates AKT signaling
GENE INFORMATION	
Gene Name	PTEN phosphatase and tensin homolog [Homo sapiens]
Official Symbol	PTEN
Synonyms	PTEN; phosphatase and tensin homolog; BZS; DEC; GLM2; MHAM; TEP1; MMAC1; PTEN1; 10q23del; MGC11227; phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN; OTTHUMP00000020032; phosphatase and tensin-like protein; mutated in multiple advanced cancers 1; MMAC1 phosphatase and tensin homolog deleted on chromosome 10; EC 3.1.3.16; EC 3.1.3.48; EC 3.1.3.67; Phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN; Mutated in multiple advanced cancers 1; Phosphatase and tensin homolog
Gene ID	5728

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mRNA Refseq	NM_000314
Protein Refseq	NP_000305
MIM	601728
UniProt ID	P60484
Chromosome Location	10q23
Function	<p>PDZ domain binding; hydrolase activity; inositol-1,3,4,5-tetrakisphosphate 3-phosphatase activity; lipid binding; magnesium ion binding; phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase activity; phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase activity; phosphatidylinositol-3,4-bisphosphate 3-phosphatase activity; phosphatidylinositol-3-phosphatase activity; platelet-derived growth factor receptor binding; protein binding; protein serine/threonine phosphatase activity; protein tyrosine phosphatase activity; protein tyrosine/serine/threonine phosphatase activity; enzyme binding</p>
Crystallographic structure of human PTEN. The N-terminal phosphatase domain is colored blue while the C-terminal C2 domain is colored red.	

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