

Active Recombinant Human PTEN protein, His-tagged

Cat. No. PTEN-342H Lot. No. (See product label)

SPECIFICATION

Product Overview Active Recombinant Human PTEN protein(P60484)(2-403 aa), fused with N-terminal His tag, was expressed in E.coli.

Species Human

Source E.coli

ProteinLength 2-403 aa

Form 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Bio-activity Phosphatase and tensin homolog (PTEN) is a protein is widely expressed throughout the body. PTEN protein acts as a phosphatase to dephosphorylate phosphatidylinositol (3,4,5)-trisphosphate (PtdIns (3,4,5)P3 or PIP3). PTEN specifically catalyses the dephosphorylation of the 3' phosphate of the inositol ring in PIP3, resulting in the biphosphate product PIP2 (PtdIns (4,5) P2). PTEN also has weak protein phosphatase activity, but this activity is also crucial for its role as a tumor suppressor. PTEN's protein phosphatase activity may be involved in the regulation of the cell cycle, preventing cells from growing and dividing too rapidly. Besides, Tumor Protein p53 (TP53) has been identified as an interactor of PTEN, thus a binding ELISA assay was conducted to detect the interaction of recombinant human PTEN and recombinant human TP53. Briefly, PTEN were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100μL were then transferred to

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TP53-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-PTEN pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µ stop solution to the wells and read at 450nm immediately. The binding activity of PTEN and TP53 was shown, and this effect was in a dose dependent manner.

Molecular Mass 48.0kDa

Endotoxin <1.0EU per 1µg (determined by the LAL method).

Purity > 90%

Storage Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.

Reconstitution Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name [PTEN phosphatase and tensin homolog \[Homo sapiens \]](#)

Official Symbol [PTEN](#)

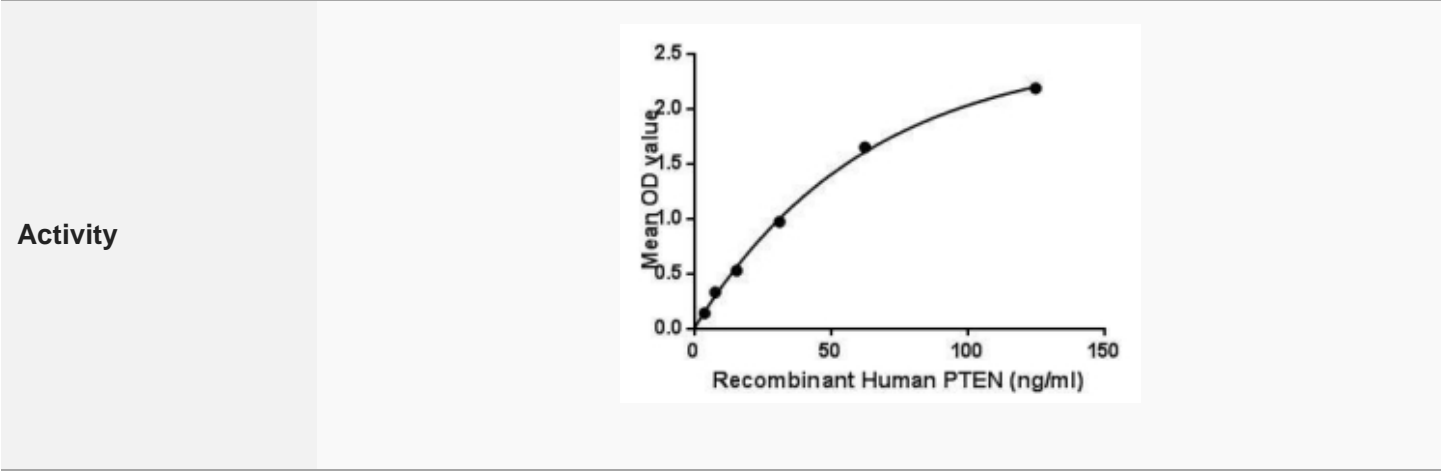
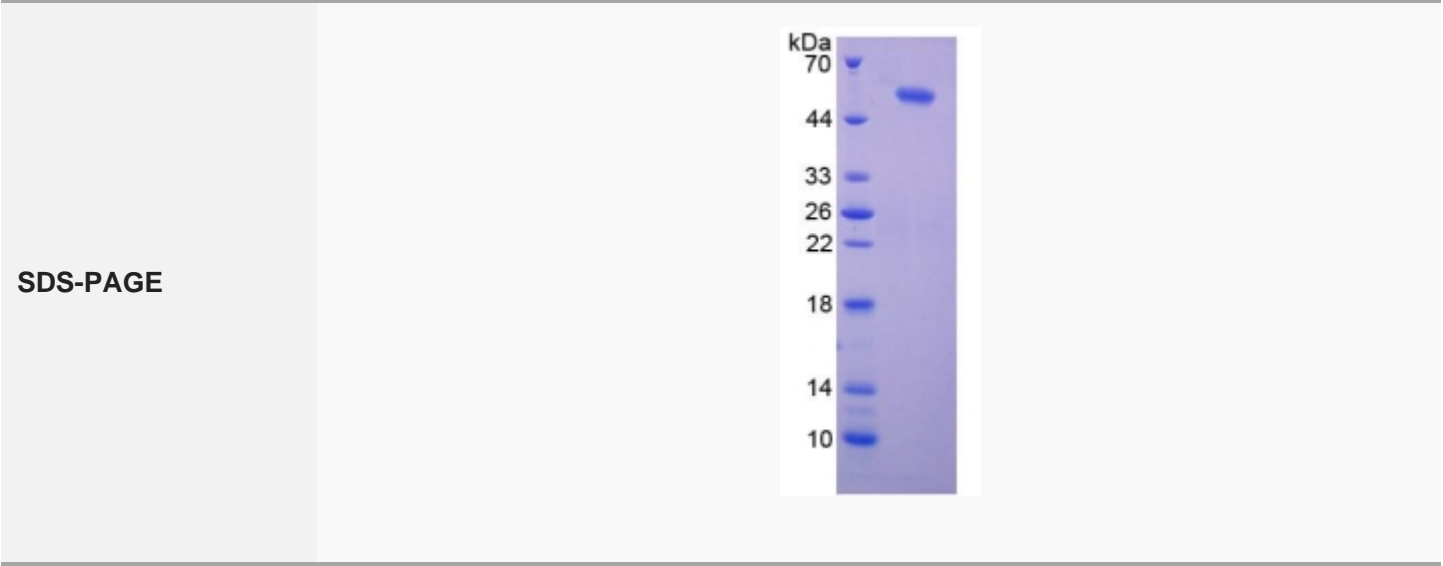
Synonyms PTEN; phosphatase and tensin homolog; BZS, MHAM; phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN; MMAC1; mutated in multiple advanced cancers 1; PTEN1; TEP1; phosphatase and tensin-like protein; MMAC1 phosphatase and tensin homolog deleted on chromosome 10; BZS; DEC; GLM2; MHAM; 10q23del; MGC11227;

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Gene ID	5728
mRNA Refseq	NM_000314
Protein Refseq	NP_000305
UniProt ID	P60484



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