

## 32-4535: Recombinant Human Phosphatase and Tensin Homolog (Discontinued)

**Alternative Name :**

Phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN, EC 3.1.3.67, EC 3.1.3.16, EC 3.1.3.48, Phosphatase and tensin homolog, Mutated in multiple advanced cancers 1, PTEN, MMAC1, TEP1, BZS, MHAM, PTEN1,

### Description

Source : Escherichia Coli. PTEN Human Recombinant full length protein expressed in E.coli, shows a 86 kDa band on SDS-PAGE (including GST tag) and it is antibody reactive. The PTEN is purified by proprietary chromatographic techniques. PTEN, a tumor suppressor, has been implicated in a large number of human tumors and is conserved from humans to worms. PTEN has a tensin like domain and a catalytic domain similar to that of the dual specificity protein tyrosine phosphatases. Characterization of PTEN protein showed that it is a phosphatase that acts on proteins and on 3-phosphorylated phosphoinositides, and can therefore modulate signal transduction pathways that involve lipid second messengers. In contrast to most of the protein tyrosine phosphatases, PTEN preferentially dephosphorylates phosphoinositide substrates. PTEN negatively regulates intracellular levels of phosphatidylinositol-3,4,5-trisphosphate in cells and acts as a tumor suppressor by negative regulation of AKT/PKB signaling pathway. Recent results indicate that at least part of its role is to regulate the activity of the serine/threonine kinase AKT/PKB, and thus influence cell survival signaling.

### Product Info

**Amount :** 5 µg

**Content :** PTEN in 50mM Tris-Acetate, pH7.5, 1mM EDTA and 20% glycerol.

**Storage condition :** Store vial at -20°C to -80°C. When stored at the recommended temperature, this protein is stable for 12 months. Please prevent freeze-thaw cycles.