

PTEN (human), (recombinant) (His-tag)

PTEN (phosphatase and tensin homologue deleted on chromosome 10, MMAC) is a lipid phosphatase which can also act as a tyrosine, serine and threonine protein phosphatase. It is specific for acidic substrates such as phosphatidylinositol(3,4,5)-trisphosphate, which is its main biological substrate that mediates growth factor-induced activation of intracellular signalling through the serine-threonine kinase Akt. The tumor suppressor gene, PTEN, also known as MMAC1 or TEP1, has been isolated from a locus on chromosome 10q23; this protein is deleted or mutated in a large number of tumors. Germline mutations of PTEN have been identified in Cowden disease, Lhermitte-Duclos disease, and Bannayan-Zonana syndrome.

Citations: 1

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Ordering Information

Product ID: BML-SE402-0010	Quantity: 10µg
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Manuals, SDS & CofA

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Handling & Storage

Handling	After opening, prepare aliquots, freeze in liquid nitrogen and store at -80°C. Avoid freeze/thaw cycles.
Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Phosphatase and tensin homolog deleted on chromosome 10
Application Notes	Can be used to study regulation and kinetics of PTEN, screen for PTEN inhibitors or activators or as positive control for Western blots.
Formulation	Liquid. In 50mM TRIS-HCl, pH 8.0, containing 150mM sodium chloride, 5mM DTT, 0.03% Brij 35, 0.1mM EDTA and 20% glycerol.
MW	~48 kDa
Purity	≥80% (SDS-PAGE)
Purity Detail	Purified by multi-step chromatography.
Source	Produced in <i>E. coli</i> . Full length human PTEN (aa 1-403) is fused at the N-terminus to a His-tag.
Specific Activity	≥ 7 pmol/min/μg assayed by PtdIns(3,4,5)P3 (Prod. No. BML-PH107) (60 μM) hydrolysis at 37°C
UniProt ID	P60484

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