

## PTEN recombinant protein

PTEN, Active

|                              |                                 |                                     |
|------------------------------|---------------------------------|-------------------------------------|
| CATALOG #<br><b>AAA73984</b> | HOST<br><b>Sf9 insect cells</b> | APPLICATIONS<br><b>Western Blot</b> |
|------------------------------|---------------------------------|-------------------------------------|

### PRODUCT SYNONYMS

PTEN; Active; ZS; DEC; GLM2; MHAM; TEP1; MMAC1; PTEN1; 10q23del; MGC11227; PTEN recombinant protein

### PRODUCT SPECIFICATIONS

|                                                      |                                                                                                                                                                                                                                                |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                                 | Sf9 insect cells                                                                                                                                                                                                                               |
| Form/Format                                          | Recombinant protein stored in 20mM MOPS, pH7.0, 300mM NaCl, 150mM imidazole, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.                                                                                                                             |
| Applicable Applications for PTEN recombinant protein | WB (Western Blot), Phosphatase Assay                                                                                                                                                                                                           |
| Tag                                                  | HIS                                                                                                                                                                                                                                            |
| Species                                              | Human                                                                                                                                                                                                                                          |
| Dry Ice Note                                         | The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.                                                                                                                                             |
| Preparation and Storage                              | Store product at -70 degree 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. |

### IMAGES



#### SDS-PAGE

Purity: Sample Purity Data. For specific information on a given lot, see related technical data sheet.



#### Activity

Specific Activity: Sample Activity Plot. For specific information on a given lot, see related technical data sheet.

### ADDITIONAL INFORMATION

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for PTEN recombinant protein | <p>Full-length recombinant human PTEN was expressed by baculovirus in Sf9 insect cells using an N-terminal His tag. The gene accession number is NM_000314.</p> <p>PTEN (phosphatase and tensin homolog) is a tumor suppressor that is frequently mutated in a large number of cancers (1). 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. Unlike most of the protein tyrosine phosphatases, PTEN preferentially dephosphorylates phosphoinositide substrates and is responsible for negatively regulating the intracellular levels of phosphatidylinositol-3,4,5-trisphosphate in cells. PTEN functions as a tumor suppressor by negatively regulating the PI3K/AKT signaling pathway (2).</p> |
| Product Categories/Family for PTEN recombinant protein   | Phosphatases; AKT/PKB Pathway; Angiogenesis; Apoptosis/Autophagy; Cancer; Cardiovascular Disease; Inflammation; Invasion/Metastasis; Metabolic Disorder; Neurobiology; NfκB Pathway; Phosphatases; WNT Signaling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## References

1. Butler, M.G. et al: Subset of individuals with autism spectrum disorders and extreme macrocephaly associated with germline PTEN tumour suppressor gene mutations. J. Med. Genet. 2005;42(4):318-21.
2. Steck, P.A. et al: Identification of a candidate tumour suppressor gene, MMAC1, at chromosome 10q23.3 that is mutated in multiple advanced cancers. Nat. Genet. 1997; 15(4):356-62

## NCBI AND UNIPROT INFORMATION

NCBI GenBank Nucleotide #

[NM\\_000314](#)

Molecular Weight

60kDa

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/pten-recombinant-protein-sf9-insect-cells-wb-western-blot-phosphatase-assay/73984>