

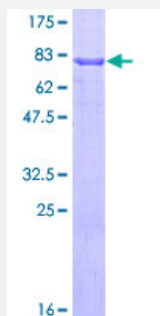
Full-Length

PTEN (Human) Recombinant Protein (P01)

Catalog # H00005728-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human PTEN full-length ORF (AAH05821.1, 1 a.a. - 403 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MTAIIKEIVSRNKRRYQEDGFDDLTYIPNIIAMGFPAERLEGVYRNNIDDVVRFLDSKHKNHYKIYNL
CAERHYDTAKFNCRVAQYPFEDHNPPQLELIKPFCELDQWLSEDDNHVAIHCAGKGRGTGVM
ICAYLLHRGKFLKAQEALDFYGEVTRDCKGVTIPSQRRYVYYSYLLKNHLDYRPVALLFHKMMFE
TIPMFSGGTCNPQFVVCQLKVKIYSSNSGPTRRREDKFMFEFPQPLPVCEDIKVEFFHKQNKMLK
KDKMFHFWVNTFFIPGPEETSEKVENGLCDQEIDSICSIERADNDKEYLVLTLTKNLDLKANKDK
ANRYFSPNFKVKLYFTKTVPEPSNPEASSSTSVTPDVSDNEPDHYRSDTTSDPENEPFDEDQ
HTQITKV

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

69.96

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction

Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — PTEN

Entrez GeneID [5728](#)

GeneBank Accession# [BC005821.1](#)

Protein Accession# [AAH05821.1](#)

Gene Name PTEN

Gene Alias 10q23del, BZS, MGC11227, MHAM, MMAC1, PTEN1, TEP1

Gene Description phosphatase and tensin homolog

Omim ID [137800](#) [153480](#) [158350](#) [174900](#) [176807](#) [176920](#) [188470](#) [276950](#) [601728](#) [605309](#) [607174](#)

Gene Ontology [Hyperlink](#)

Gene Summary This gene was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. The protein encoded this gene is a phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase. It 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, this protein preferentially dephosphorylates phosphoinositide substrates. It negatively regulates intracellular levels of phosphatidylinositol-3,4,5-trisphosphate in cells and functions as a tumor suppressor by negatively regulating AKT/PKB signaling pathway. [provided by RefSeq]

Other Designations MMAC1 phosphatase and tensin homolog deleted on chromosome 10[OTTHUMP00000020032] mutated in multiple advanced cancers 1

Pathway

- [Endometrial cancer](#)
- [Focal adhesion](#)
- [Glioma](#)
- [Inositol phosphate metabolism](#)
- [Melanoma](#)
- [p53 signaling pathway](#)
- [Pathways in cancer](#)
- [Phosphatidylinositol signaling system](#)
- [Prostate cancer](#)
- [Small cell lung cancer](#)
- [Tight junction](#)

Disease

- [Abnormalities](#)
- [Adenocarcinoma](#)
- [Alzheimer disease](#)
- [Astrocytoma](#)
- [Autistic Disorder](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Cleft Lip](#)
- [Cleft Palate](#)

- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Colorectal Neoplasms](#)
- [Craniofacial Abnormalities](#)
- [Developmental Disabilities](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)
- [Ductus Arteriosus](#)
- [Edema](#)
- [Endometrial Neoplasms](#)
- [Endometriosis](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Glioblastoma](#)
- [Glioma](#)
- [Hamartoma Syndrome](#)
- [Hyperplasia](#)
- [Infant](#)
- [Insulin Resistance](#)
- [Learning Disorders](#)
- [Lung Neoplasms](#)
- [Lupus Erythematosus](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Mental Retardation](#)
- [Microsatellite Instability](#)

- [Narcolepsy](#)
- [Neoplasm Metastasis](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Neuroma](#)
- [Ovarian cancer](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Precursor T-Cell Lymphoblastic Leukemia-Lymphoma](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Proteus Syndrome](#)
- [Pulmonary Disease](#)
- [Rectal Neoplasms](#)
- [Retinal Neoplasms](#)
- [Retinoblastoma](#)
- [Skin Neoplasms](#)
- [Stomach Neoplasms](#)
- [Syndrome](#)
- [Thyroid Neoplasms](#)
- [Tobacco Use Disorder](#)
- [Urinary Bladder Neoplasms](#)
- [Werner syndrome](#)