9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

PTEN Human, His

Phosphatase and Tensin homolog Human Recombinant, His Tag
RCP1735

Product Overview

Name	PTEN Human, His

Description

Phosphatase and Tensin homolog Human Recombinant, His Tag

Accession (Primary)	P60484

Synonyms

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, 10q23del, MGC11227.

Introduction

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.

Source

Escherichia Coli.

Physical Appearance

Sterile Filtered colorless solution.

Formulation

The PTEN solution contains 20mM Tris-HCl buffer (pH 8.0), 1mM EDTA, 2mM DTT, 100mM NaCl, and 20% glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

Greater than 85.0% as determined by SDS-PAGE.

Amino acid sequence

MGSSHHHHHH SSGLVPRGSH MTAIIKEIVS RNKRRYQEDG FDLDLTYIYP NIIAMGFPAE RLEGVYRNNI

DDVVRFLDSK HKNHYKIYNL CAERHYDTAK FNCRVAQYPF EDHNPPQLEL IKPFCEDLDQ WLSEDDNHVA

AIHCKAGKGR TGVMICAYLL HRGKFLKAQE ALDFYGEVRT RDKKGVTIPS QRRYVYYYSY LLKNHLDYRP

VALLFHKMMF ETIPMFSGGT CNPQFVVCQL KVKIYSSNSG PTRREDKFMY FEFPQPLPVC GDIKVEFFHK

QNKMLKKDKM FHFWVNTFFI PGPEETSEKV ENGSLCDQEI DSICSIERAD NDKEYLVLTL TKNDLDKANK

DKANRYFSPN FKVKLYFTKT VEEPSNPEAS SSTSVTPDVS DNEPDHYRYS DTTDSDPENE PFDEDQHTQI TKV.

Precautions

PTEN Human, His is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P60484)