



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Phosphatase and Tensin homolog His Tag

Catalog No.
228-11339

Source:
Escherichia coli

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.

Description:

PTEN Human Recombinant fused with 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 423 amino acids (1- 403 a.a.) and having a molecular mass of 49.3kDa.

The PTEN is purified by proprietary chromatographic techniques.

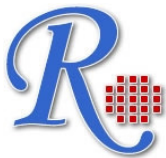
Physical Appearance:

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.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Stability:

PTEN although stable 4°C for 4 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Purity:

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 RDKKGV TIPS QRRYVYYYSY
LLKNHLDYRP VALLFHKMMF ETIPMFSGGT CNPQFVVCQL KVKIYSSNSG
PTRREDKFMY FEFPOPLPVC GDIKVEFFHK QNKMLKKDKM FHFVNTFFI
PGPEETSEKV ENGLCDQEI DSICSIERAD NDKEYLVLT TLTKNDLDKANK
DKANRYFSPN FKVKLYFTKT VEEPSNPEAS SSTSVTPDVS DNEPDHYRYS
DTTDSDPENE PFDEDQHTQI TKV.

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