

Recombinant human PP1 Catalytic protein

Catalog Number: ATGP1174

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-330aa

UniProt No.

P62136

NCBI Accession No.

NP_002699.1

Alternative Names

Serine/threonine-protein phosphatase PP1-alpha catalytic subunit, PP-1A, PP1alpha, PPP1A

PRODUCT SPECIFICATION

Molecular Weight

39.7 kDa (350aa) confirmed by MALDI-TOF

Concentration

0.2mg/ml (determined by Bradford assay)

Formulation

Liquid in. 50mM Tris-HCl buffer (pH 8.5) containing 0.2M NaCl, 1mM DTT, 0.1mM PMSF, 1mM MnCl₂, 50%glycerol

Purity

> 80% by SDS-PAGE

Biological Activity

Specific activity: >3,000unit/mg. Enzymatic activity was confirmed by measuring the amount of enzyme hydrolyzing 1nmole of p-nitrophenyl phosphate (pNPP) per minute at 37C, pH7.5 using 10mM of substrate.

Tag

His-Tag

Application

SDS-PAGE, Enzyme Activity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

PPP1CA, also known as serine/threonine-protein phosphatase PP1-alpha catalytic subunit, is essential for cell division, and participates in the regulation of glycogen metabolism, muscle contractility and protein synthesis. This protein may play an important role in dephosphorylating substrates such as the postsynaptic density-

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associated Ca²⁺/calmodulin dependent protein kinase II. Recombinant human PPP1CA protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography.

Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH> MSDSEKLNLD SIIGRLLEVQ GSRPGKNVQL TENEIRGLCL KSREIFLSQP ILLELEAPLK ICGDIHGQYY DLLRLFYEGG FPPESNYLFL GDYVDRGKQS LETICLLAY KIKYPENFFL LRGNHECASI NRIYGFYDEC KRRYNIKLWK TFTDCFNCLP IAAIVDEKIF CCHGGLSPDL QSMEQIRRM RPTDVPDQGL LCDLLWSDPD KDVQGWGEND RGVSFTEGAE VVAKFLHKHD LDLICRAHQV VEDGYEFFAK RQLVTLFSAP NYCGEFDNAG AMMSVDETLM CSFQILKPAD KNKGKYGQFS GLNPGGRPIT PPRNSAKAKK

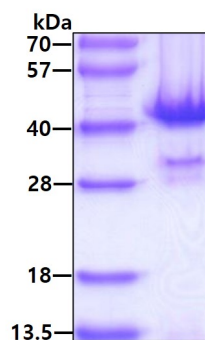
General References

He B., et al. (1997) Proc. Natl. Acad. Sci. u.S.A. 94:843-848.

Trinkle-Mulcahy L., et al. (2001) J. Cell Sci. 114:4219-4228.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.