

Recombinant human PP2C alpha/PPM1A protein

Catalog Number: PPC3001

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-382aa

UniProt No.

P35813

NCBI Accession No.

NP_066283

Alternative Names

Pyruvate dehydrogenase phosphatase catalytic subunit 1, Pyruvate dehydrogenase acetyl-transferring-phosphatase 1, Protein phosphatase Mg²⁺/Mn²⁺-dependent 1A, Protein phosphatase 2C, Protein phosphatase 1A (formerly 2C) magnesium-dependent alpha isoform, Protein phosphatase 1A (formerly 2C), PPM2C, PPM1A, PP2CA, PP2C alpha, PDPC 1, PDP 1, PDP, MGC9201, FLJ42306, EC 3.1.3.43

PRODUCT SPECIFICATION

Molecular Weight

46.6 kDa (418aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 10mM Tris-HCl buffer (pH 7.5) containing 50mM NaCl, 2mM DTT, 1mM MnCl₂, 20%glycerol

Purity

> 95% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity is > 1,400unit/mg, and is defined as the amount of enzyme that hydrolyze 1.0nmole of p-nitrophenyl phosphate (pNPP) per minute at pH 7.5 at 37C.

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.

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BACKGROUND

Description

Protein phosphatase 2C (PP2C alpha) is a Mn^{2+} - or Mg^{2+} - dependent protein serine/threonine phosphatase that is essential for regulating cellular stress response in eukaryotes. The protein coding region of PP2C alpha (amino acids 1-382) was cloned into an E. coli expression vector. PP2C alpha was overexpressed in E. coli as a soluble His-tag fusion protein, and it was purified by conventional column chromatographic techniques.

Amino acid Sequence

<MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWIL>MGAF LDKPKMEKHN AQGQGNGLRY GLSSMQGWRV
EMEDAHTAVI GLPSGLESWS FFAVYDGHAG SQVAKYCCEH LLDHITNNQD FKGSAGAPSV ENVKNGIRTG FLEIDEHMRV
MSEKKHGADR SGSTAVGVLI SPQHTYFINC GDSRGLLCRN RKVHFFTQDH KPSNPLEKER IQNAGGSVMI QRVNGSLAVS
RALGDFDYKC VHKGKPTQL VSPEPEVHDI ERSEDDQFI ILACDGIWDV MGNEELCDFV RSRLEVTDDL EKVCNEVVD
CLYKGSRDNM SVILICFPNA PKVSPEAVKK EAELDKYLEC RVEEIIKKQG EGVPDLVHVM RTLASENIPS LPPGGELASK
RNVIEAVYNR LNPYKNDDTD STSTDDMW

General References

Das, A. K. et al. (1996) EMBO J. 15, 6798-6809

DATA

SDS-PAGE

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

