

Active Recombinant Full Length Human PPM1A, His-tagged

Cat. No. PPM1A-66H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant human PP2Cα was overexpressed in E. coli as a soluble His-tag fusion protein, and it was purified by conventional column chromatographic techniques, 46.6 kDa (418 aa).

Species Human

Source E.coli

Protein Length 1-382 a.a.

Description Protein phosphatase 2C (PP2Cα) is a Mn²⁺- or Mg²⁺-dependent protein serine/threonine phosphatase that is essential for regulating cellular stress response in eukaryotes. The protein coding region of PP2Cα (amino acids 1-382) was cloned into an E. coli expression vector.

Sequences of amino acids

MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWILMGAF LDKPKMEKHN
 AQQQGNGLRY GLSSMQGWRV EMEDAHTAVI GLPSGLESWS FFAVYDGHAG
 SQVAKYCCEH LLDHITNNQD FKGSAGAPSV ENVKNGIRTG FLEIDEHMRV
 MSEKKHGADR SGSTAVGVLI SPQHTYFINC GDSRGLLCRN RKVHFFTQDH
 KPSNPLEKER IQNAGGSVMI QRVNGSLAVS RALGDFDYKC VHKGKPTQL
 VSPEPEVHDI ERSEDDQFI ILACDGIWDV MGNEELCDFV RSRLEVTDLL
 EKVCNEVVDT CLYKGSRDNM SVILICFPNA PKVSPEAVKK EAELDKYLEC
 RVEEIIKKQG EGVPLVHVM RTLASENIPS LPPGGELASK RNVIEAVYNR
 LNPYKNDDTD STSTDDMW

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Formulation	Liquid. In 10 mM Tris-HCl, pH7.5, 50 mM NaCl, 2 mM DTT, 1 mM MnCl ₂ , 20%glycerol.
Molecular Weight	46.6 kDa (418 aa), confirmed by MALDI-TOF
Purity	> 95% by SDS - PAGE
Concentration	1 mg/ml (determined by Bradford assay)
Endotoxin Level	< 1.0 EU per 1 µg of protein (determined by LAL method)
Specific Activity	>8,000 units/mg of PP2C alpha
Unit Difinition	One unit will hydrolyze 1nanomole of p-nitrophenyl phosphatate(pNPP) per minute at pH 7.4 at 37°C using 10mM of substrate
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name	PPM1A protein phosphatase 1A (formerly 2C), magnesium-dependent, alpha isoform [Homo sapiens]
Synonyms	Protein phosphatase 1A; EC 3.1.3.16, Protein phosphatase 2C isoform alpha; PP2C-alpha; IA; PPM1A; PP2CA; MGC9201; PPP2CA; PP2Ac; RP-C; protein phosphatase 2 (formerly 2A), catalytic subunit, alpha isoform; protein phosphatase 2, catalytic subunit, alpha isoform; PP2A-alpha; replication protein C; serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform; FLJ42306; PP2C-ALPHA; PP2C-alpha; protein ph; protein phosphatase1A (formerly 2C), magnesium-dependent, alpha isoform

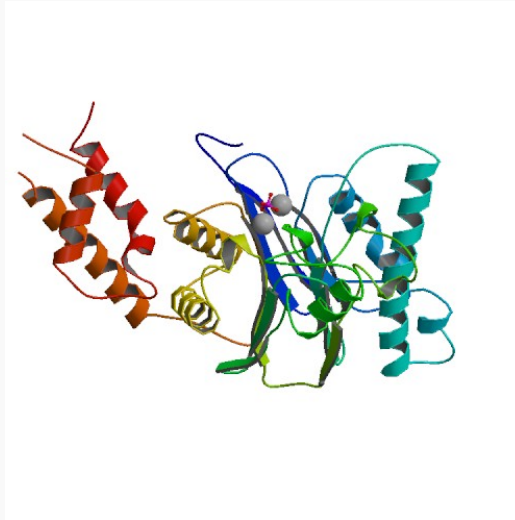
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Gene ID	5494
mRNA Refseq	NM_021003
Protein Refseq	NP_066283
MIM	606108
UniProt ID	P35813
Chromosome Location	14q23.1
Function	hydrolase activity; magnesium ion binding; manganese ion binding; protein C-terminus binding; protein serine/threonine phosphatase activity; signal transducer activity

PDBrendering based on 1a6q.



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