

AR39092PU-N

Human Protein phosphatase 1G / PPM1G (1-546, His-tag) - Purified

Alternate names:	PP2C-gamma, PPM1C, Protein phosphatase 1C, Protein phosphatase 2C isoform gamma, Protein phosphatase magnesium-dependent 1 gamma
Quantity:	50 µg
Concentration:	1.0 mg/ml (determined by BCA assay)
Background:	PPM1G, as known as protein phosphatase 1G, is a member of the PP2C family of Ser/Thr protein phosphatases that is negative regulators of cell stress response pathways. This enzyme localizes to the cytoplasm and is widely expressed, with most abundant expression detected in testis, skeletal muscle and heart. It is necessary for the dephosphorylation of pre-mRNA splicing factors, which is an important process for the formation of the functional spliceosome.
Uniprot ID:	O15355
NCBI:	NP_817092
GenelD:	5496
Species:	Human
Source:	E. coli
Format:	State: Liquid purified protein Purity: >85% pure by SDS - PAGE Buffer System: 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 0.1M NaCl, 0.1mM PMSF
Description:	Recombinant human PPM1G protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography. AA Sequence: MGSSHHHHHH SSGLVPRGSH MGAYLSQPNT VKCSGDGVGA PRLPLPYGFS AMQGWRVSME DAHNCIPELD SETAMFSVYD GHGGEVALY CAKYLDPDIK DQKAYKEGKL QKALEDAFLA IDAKLTTEEV IKELAQIAGR PTEDEDEKEK VADEDDVDNE EAALLHEEAT MTIEELLTRY GQNCHKGPPH SKSGGGTGEE PGSQGLNGEA GPEDSTRETP SQENGPTAKA YTGFSNSNER GTEAGQVGEP GIPTGEAGPS CSSASDKLPR VAKSKFFEDS EDESDEAESE EEDSEECSEE EDGYSSEAE NEEDEDDEE AEEDDEEEEEE EMMVPGMEGK EEPGSDSGTT AVVALIRGKQ LIVANAGDSR CVVSEAGKAL DMSYDHKPED EVELARIKNA GSKVTMDGRV NGGLNLSRAI GDHFYKRKNK LPPEEQMISA LPDIKVLTLT DDHEFMVIAC DGIWNVMSSQ EVVDFIQSKI SQRDENGELR LLSSIVEELL DQCLAPDTSG DGTGCDNMT C IIICFKPRNT AELQPESGKR KLEEVLSTEG AEENGNSDKK KKAKRD Specific Activity: > 3,000 units/mg. Enzymatic activity was confirmed by measuring the amount of enzyme hydrolyzing 1 nmole of p-nitrophenyl phosphate (pNPP) per minute at 25°C, pH 7.5 using 10mM of substrate. Molecular weight: 61.4 kDa (566 amino acids)

Storage:

Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

1. Travis SM. et al. (1997) FEBS Lett. 412:415-9.

2. Brautigan D.L. et al. (2005) Biochemistry 44: 11067-73.

Protocols:
Activity Assay

1. Prepare a 200ul reaction mix into a suitable container : The final concentrations are 10mM Tris (pH 7.5), 50mM NaCl, 2mM DTT, 1mM MnCl₂, 10mM pNPP.

2. Pre-warm reaction mix in heat block at 37°C

3. Add recombinant PPM1G solution with various concentrations (2ug, 3ug, 4ug) in 200 ul reaction buffer.

4. Mix by inversion and incubate at 37°C for 10 minutes.

5. Stop the reaction by adding the 800 ul of 0.1N NaOH.

6. Record the absorbance at 405nm

Pictures:

Recombinant human PPM1G, 1-546 aa, His-tagged

