

## PPM1G Human, 546 a.a.

**Description:** PPM1G Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 566 amino acids (1-546) and having a molecular mass of 61.4 kDa. The PPM1G is fused to a 20 amino acid His-Tag at N-terminus and purified by proprietary chromatographic techniques.

**Synonyms:** Protein Phosphatase 1G, PP2CG, PPP2CG, MGC1675, MGC2870, PP2C GAMMA, EC 3.1.3.16, Protein phosphatase 2C isoform gamma, PP2C-gamma, Protein phosphatase magnesium-dependent 1 gamma, Protein phosphatase 1C, PPM1G, PPM1C.

**Source:** E.coli.

**Physical Appearance:** Sterile Filtered colorless solution.

**Amino Acid Sequence:** MGSSHHHHHH SSGLVPRGSH MGAYLSQPNT VKCSGDGVGA  
PRLPLPYGFS AMQGWVRSME DAHNCIPELD SETAMFSVYD GHGGEEVALY CAKYLPDIK  
DQKAYKEGKL QKALEDAFLA IDAKLTTEEV IKELAQIAGR PTEDEDEKEK VADEDDVDNE  
EAALLHEEAT MTIEELLTRY GQNCHKGPPH SKSGGGTGEE PGSQQLNGEA GPEDSTRETP  
SQENGPTAKA YT

**Purity:** Greater than 85% as determined by SDS-PAGE.

### Formulation:

The PPM1G solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 1mM DTT, 0.1M NaCl, 0.1mM PMSF and 20% glycerol.

### Stability:

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

### Introduction:

PPM1G is part of the PP2C family of Ser/Thr protein phosphatases which are known to be negative regulators of cell stress response pathways. PPM1G is accountable for the dephosphorylation of Pre-mRNA splicing factors, an important factor for the formation of functional spliceosome. PPM1G regulates cell cycle progression. PPM1G mediates histone dephosphorylation/exchange in response to DNA damage or checkpoint recovery in higher eukaryotes. The degradation of p21/WAF1 induced by PPM1G is mediated in a proteasome-dependent manner. Protein phosphatase 1G regulates assembly and function of the beta-catenin degradation complex.

### Biological Activity:

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 25C, pH7.5 using 10mM of substrate.

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