**Proteins** 

## **Product** Data Sheet

# PPM1A Protein, Human (His)

Cat. No.: HY-P71227

Synonyms: Protein Phosphatase 1A; Protein Phosphatase 2C Isoform Alpha; PP2C-Alpha; Protein

Phosphatase IA; PPM1A; PPPM1A

Species: Human Source: E. coli

Accession: P35813 (G2-W382)

5494 Gene ID:

Molecular Weight: Approximately 45.0 kDa

## **PROPERTIES**

AA Sequence	GAFLDKPKME KHNAQGQGNG LRYGLSSMQG WRVEMEDAHT AVIGLPSGLE SWSFFAVYDG HAGSQVAKYC CEHLLDHITN NQDFKGSAGA PSVENVKNGI RTGFLEIDEH MRVMSEKKHG ADRSGSTAVG VLISPQHTYF INCGDSRGLL CRNRKVHFFT QDHKPSNPLE KERIQNAGGS VMIQRVNGSL AVSRALGDFD YKCVHGKGPT EQLVSPEPEV HDIERSEEDD QFIILACDGI WDVMGNEELC DFVRSRLEVT DDLEKVCNEV VDTCLYKGSR DNMSVILICF PNAPKVSPEA VKKEAELDKY LECRVEEIIK KQGEGVPDLV HVMRTLASEN IPSLPPGGEL ASKRNVIEAV
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

## **DESCRIPTION**

Background PPM1A, an enzyme with broad specificity, functions as a negative regulator in various signaling pathways. It plays a pivotal

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role in the attenuation of TGF-beta signaling by dephosphorylating SMAD2 and SMAD3. This enzymatic action leads to the dissociation of SMAD2 and SMAD3 from SMAD4, their nuclear export, and ultimately, the termination of TGF-beta-mediated signaling. Additionally, PPM1A dephosphorylates PRKAA1 and PRKAA2, contributing to the modulation of cellular processes. Another significant aspect of its regulatory function involves the termination of TNF-alpha-mediated NF-kappa-B activation. In this context, PPM1A dephosphorylates and inactivates IKBKB/IKKB, contributing to the downregulation of NF-kappa-B signaling.

Caution: Product has not been fully validated for medical applications. For research use only.

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