

PPM1A Human

Description:Protein Phosphatase 1A Alpha Isoform Human Recombinant produced is a single, non-glycosylated polypeptide chain containing 382 amino acids and having a molecular mass of 46.6KDa (containing His tag, T7 gene 10 leader, Xpress™ Epitope). The protein coding region of PP2C (amino acids 1-382) was cloned into an E. coli expression vector(BamHI/Hind site). PPM1A was overexpressed in E. coli as a soluble His-tag fusion protein, and it was purified by conventional column chromatographic techniques.

Synonyms:Protein phosphatase 1A, EC 3.1.3.16, Protein phosphatase 2C isoform alpha, PP2C-alpha, IA, PPM1A, PP2CA, MGC9201.

Source:Escherichia Coli.

Physical Appearance:Sterile filtered colorless solution.

Amino Acid Sequence:

MRGSHHHHHHGMASMTGGQMQMRDLYDDDDKDRWILMGAFDLPKPKMEKHN
AQQGQNGRLRYGLSSMQGWRVEMEDAHTAVIGLPSGLESWSFFAVYDGHAG
SQVAKYCCEHLLDHITNNQDFKGSAGAPSVENVKNGIRTG FLEIDEHMRV
MSEKKHGADRSGSTAVGVLISQHTYFINGDSRGLLCRNRKVHFFTQDH
KPSNPLEKERIQNAGGSVMQIRVNGSLAVSRALGDFDYKCVHGKGPTQL

Purity:Greater than 95.0% as determined by(a)Analysis by RP-HPLC.(b)Analysis by SDS-PAGE.

Formulation:

The protein (1mg/ml) In phosphate-buffered saline (pH 7.4)

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:

Protein Phosphatase 2C alpha is a member of the PP2C family of Ser/Thr protein phosphatases. PP2C family members are known to be negative regulators of cell stress response pathways. This phosphatase dephosphorylates, and negatively regulates the activities of, MAP kinases and MAP kinase kinases. It has been shown to inhibit the activation of p38 and JNK kinase cascades induced by environmental stresses. This phosphatase can also dephosphorylate cyclin-dependent kinases, and thus may be involved in cell cycle control. Overexpression of this phosphatase is reported to activate the expression of the tumor suppressor gene TP53/p53, which leads to G2/M cell cycle arrest and apoptosis. Three alternatively spliced transcript variants encoding two distinct isoforms have been described. Protein phosphatase 2C(PP2C) is a Mn²⁺- or Mg²⁺-dependent protein serine/threonine phosphatase that is essential for regulating cellular stress response in eukaryotes.

Biological Activity:

8,000 U/mg.



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