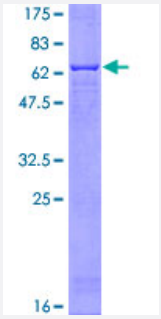
Full-Length

PPP1CA (Human) Recombinant Protein (P01)

Catalog # H00005499-P01 Size 25 ug, 10 ug

Applications



Specification

Product Description	Human PPP1CA full-length ORF (AAH08010.1, 1 a.a. - 330 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	MSDSEKLNLDSIIGRLLEVQGSRPGKNVQLTENEIRGLCLKSREIFLSQPILLELEAPLKICGDIHGQY YDLLRLFEYGGFPPESNYLFLGDYVDRGKQSLETICLLLAYKIKYPENFFLLRGNHECASINRIYGFY DECKRRYNIKLWKTFTDCFNCLPIAAIVDEKIFCCHGGLSPDLQSMEQIRRIMRPTDVPDQGLLCDL LWSDPDKDVQGWGENDRGVSFTFGAEVVAKFLHKHDLDLICRAHQVVEDGYEFFAKRQLVTLF SAPNYCGEFDNAGAMMSVDETLMCSFQILKPADKNKGKYGQFSGLNPGGRPITPPRNSAKAKK
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	61.93
Interspecies Antigen Sequence	Mouse (99); Rat (100)
Preparation Method	*in vitro* wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — PPP1CA

Entrez GeneID	5499
GeneBank Accession#	BC008010.1
Protein Accession#	AAH08010.1
Gene Name	PPP1CA
Gene Alias	MGC15877, MGC1674, PP-1A, PPP1A
Gene Description	protein phosphatase 1, catalytic subunit, alpha isoform
Omim ID	176875
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is one of the three catalytic subunits of protein phosphatase 1 (PP1). PP1 is a serine/threonine specific protein phosphatase known to be involved in the regulati on of a variety of cellular processes, such as cell division, glycogen metabolism, muscle contractili ty, protein synthesis, and HIV-1 viral transcription. Increased PP1 activity has been observed in th e end stage of heart failure. Studies in both human and mice suggest that PP1 is an important reg ulator of cardiac function. Mouse studies also suggest that PP1 functions as a suppressor of learn ing and memory. Three alternatively spliced transcript variants encoding different isoforms have b een found for this gene. [provided by RefSeq
Other Designations	protein phosphatase 1, catalytic subunit, alpha|serine/threonine protein phosphatase PP1-alpha 1 catalytic subunit

Publication Reference

- The heterotrimeric G protein Gβ1 interacts with the catalytic subunit of protein phosphatase 1 and modulates G protein-coupled receptor signaling in platelets.

  Pradhan S, Khatlani T, Nairn AC, Vijayan KV.

  The Journal of Biological Chemistry 2017 Aug; 292(32):13133.

  Application: PI, WB-Re, Recombinant proteins

Pathway

- Focal adhesion
- Insulin signaling pathway
- Long-term potentiation
- Regulation of actin cytoskeleton
- Vascular smooth muscle contraction