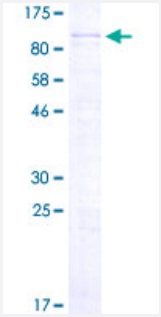
Full-Length

PPM1D (Human) Recombinant Protein (P01)

Catalog # H00008493-P01 Size 25 ug, 10 ug

Applications



Specification

Product Description	Human PPM1D full-length ORF (NP_003611.1, 1 a.a. - 605 a.a.) recombinant protein with GST tag at N-terminal.
Sequence	MAGLYSLGVSVFSDQGGRKYMEDVTQIVVEPEPTAEEKPSPRRSLSQPLPPRPSPAALPGGEVS GKGPAVAAREARDPLPDAGASPAPSRCCRRRSSVAFFAVCDGHGGREAAQFAREHLWGFIKK QKGFTSSEPAKVCAAIRKGFLACHLAMWKKLAEWPKTMTGLPSTSGTTASVVIIRGMKMYVAHVG DSGVVLGIQDDPKDDFVRAVEVTQDHKPELPKERERIEGLGGSVMNKSGVNRVVWKRPRLTHN GPVRRSTVIDQIPFLAVARALGDLWSYDFFSGEFVVSPEPDTSVHTLDPQKHKYIILGSDGLWNMI PPQDAISMCQDQEEKKYLMGEHGQSCAKMLVNRALGRWRQRMLRADNTSAIVICISPEVDNQGN FTNEDELYLNLTDSPSYNSQETCVMTPSPCSTPPVKSLEEDPWPRVNSKDHIPALVRSNAFSEN FLEVSAEIARENVQGVVIPSKDPEPLEENCAKALTLRIHDSLNNSLPIGLVPTNSTNTVMDQKNLKM STPGQMKAQEIERTPPTNFKRTLEESNSGPLMKKHRRNGLSRSSGAQPASLPTTSQRKNSVKLT MRRRLRGQKKIGNPLLHQHRKTVCVC
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	93.1
Interspecies Antigen Sequence	Mouse (87); Rat (89)
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 — PPM1D

Entrez GeneID	8493
GeneBank Accession#	NM_003620.2
Protein Accession#	NP_003611.1
Gene Name	PPM1D
Gene Alias	PP2C-DELTA, WIP1
Gene Description	protein phosphatase 1D magnesium-dependent, delta isoform
Omim ID	114480 605100
Gene Ontology	Hyperlink

Gene Summary	The protein encoded by this gene 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. The expression of this gene is induced in a p53-dependent manner in response to various environmental stresses. While being induced by tumor suppressor protein TP53/p53, this phosphatase negatively regulates the activity of p38 MAP kinase, MAPK/p38, through which it reduces the phosphorylation of p53, and in turn suppresses p53-mediated transcription and apoptosis. This phosphatase thus mediates a feedback regulation of p38-p53 signaling that contributes to growth inhibition and the suppression of stress induced apoptosis. This gene is located in a chromosomal region known to be amplified in breast cancer. The amplification of this gene has been detected in both breast cancer cell line and primary breast tumors, which suggests a role of this gene in cancer development. [provided by RefSeq
Other Designations	p53-induced protein phosphatase 1|protein phosphatase 1D|protein phosphatase 2C delta isoform|protein phosphatase Wip1

Publication Reference

- p21 WAF1/CIP1 promotes p53 protein degradation by facilitating p53-Wip1 and p53-Mdm2 interaction.

  Jihyun Lee, Jongdoo Kim, Eun Mi Kim, Ukjin Kim, A-Ram Kang, Jong Kuk Park, Hong-Duck Um.

  Biochemical and Biophysical Research Communications 2021 Mar; 543:23.

  Application: PI, WB-Re, Human, HCT-116 cells, Recombinant proteins

- Wip1 controls the translocation of the chromosomal passenger complex to the central spindle for faithful mitotic exit.

  Xianghua Zhang, Ji Eun Park, Eun Ho Kim, Jihee Hong, Ki-Tae Hwang, Young A Kim, Chang-Young Jang.

  Cellular and Molecular Life Sciences : CMLS 2021 Mar; 78(6):2821.

  Application: Func, Human, HeLa cells

Pathway

- p53 signaling pathway

Disease

- Tobacco Use Disorder