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Product datasheet for RC209328

PPM1D (NM_003620) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PPM1D (NM_003620) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PPM1D
Synonyms:	IDDGIP; JDVS; PP2C-DELTA; WIP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC209328 representing NM_003620
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGGGCTGTACTCGCTGGGAGTGAGCGTCTTCTCCGACCAGGGCGGGAGGAAGTACATGGAGGACG
TTACTCAAATCGTTGTGGAGCCCGAACCGACGGCTGAAGAAAAGCCCTCGCCGCGGCGGTCGCTGTCTCA
GCCGTTGCCTCCGCGGCCGTCGCCGGCCGCCCTTCCCGGCGGCGAAGTCTCGGGGAAAGGCCCAGCGGTG
GCAGCCCGAGAGGCTCGCGACCCTCTCCCGGACGCCGGGGCCTCGCCGGCACCTAGCCGCTGCTGCCGCC
GCCGTTCCTCCGTGGCCTTTTTCGCCGTGTGCGACGGGCACGGCGGGCGGGAGGCGGCACAGTTTGCCCG
GGAGCACTTGTGGGGTTTCATCAAGAAGCAGAAGGGTTTCACCTCGTCCGAGCCGGCTAAGGTTTGCGCT
GCCATCCGCAAAGGCTTTCTCGCTTGTCACCTTGCCATGTGGAAGAAACTGGCGGAATGGCCAAAGACTA
TGACGGGTCTTCCTAGCACATCAGGGACAACTGCCAGTGTGGTCATCATTCGGGGCATGAAGATGTATGT
AGCTCACGTAGGTGACTCAGGGGTGGTTCTTGGAATTCAGGATGACCCGAAGGATGACTTTGTCAGAGCT
GTGGAGGTGACACAGGACCATAAGCCAGAACTTCCCAAGGAAAGAGAACGAATCGAAGGACTTGGTGGGA
GTGTAATGAACAAGTCTGGGGTGAATCGTGTAGTTTGGAAACGACCTCGACTCACTCACAATGGACCTGT
TAGAAGGAGCACAGTTATTGACCAGATTCCTTTTCTGGCAGTAGCAAGAGCACTTGGTGATTTGTGGAGC
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AATGTGCCAGGACCAAGAGGAGAAAAAATACCTGATGGGTGAGCATGGACAATCTTGTGCCAAAATGCTT
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CTCAAAAGATCCAGAACCACTTGAAGAAAATTGCGCTAAAGCCCTGACTTTAAGGATACATGATTCTTTG
AATAATAGCCTTCCAATTGGCCTTGTGCCTACTAATTCAACAAACACTGTCATGGACCAAAAAAATTTGA
AGATGTCAACTCCTGGCCAAATGAAAGCCCAAGAAATTGAAAGAACCCCTCCAACAAACTTTAAAAGGAC
ATTAGAAGAGTCCAATTCTGGCCCCCTGATGAAGAAGCATAGACGAAATGGCTTAAGTCGAAGTAGTGGT
GCTCAGCCTGCAAGTCTCCCCACAACCTCACAGCGAAAGAACTCTGTTAAACTCACCATGCGACGCAGAC
TTAGGGGCCAGAAGAAAATTGGAAATCCTTTACTTCATCAACACAGGAAAACTGTTTGTGTTTGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209328 representing NM_003620
Red=Cloning site Green=Tags(s)

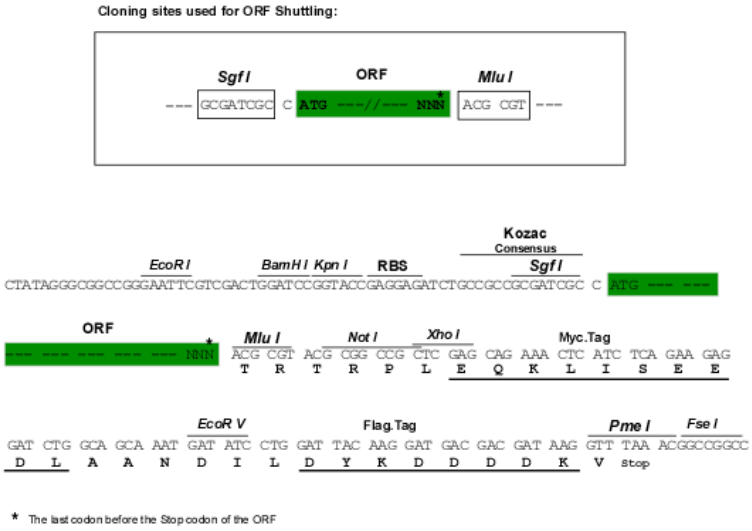
MAGLYSLGVSVFSDQGGRKYMEDVTQIVVEPEPTAEEKPSPRRSLSQPLPPRPSPAALPGGEVSGKGPAV
AAREARDPLPDAGASPAPSRCCRRRSSVAFFAVCDGHGGREAAQFAREHLWGFIKKQKGFTSSEPAKVCA
AIRKGFLACHLAMWKKLAEWPKTMTGLPSTSGTTASVVIIRGMKMYVAHVGDSGVVLGIQDDPKDDFVRA
VEVTQDHKPELPKERERIEGLGGSVMNKSGVNRVVWKRPRLTHNGPVRRSTVIDQIPFLAVARALGDLWS
YDFFSGEFVVSPEPDTSVHTLDPQKHKYIILGSDGLWNMIPPQDAISMCQDQEEKKYLMGEHGQSCAKML
VNRALGRWRQRMLRADNTSAIVICISPEVDNQGNFTNEDELYLNLTDSPSYNSQETCVMTPSPCSTPPVK
SLEEDPWPRVNSKDHIPALVRSNAFSENFLEVSAEIARENVQGVVIPSKDPEPLEENCAKALTLRIHDSL
NNSLPIGLVPTNSTNTVMDQKNLKMSTPGQMKAQEIERTPPTNFKRTLEESNSGPLMKKHRRNGLSRSSG
AQPASLPTTSQRKNSVKLTMRRRLRGQKKIGNPLLHQHRKTVCVC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4473_c01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003620

ORF Size: 1815 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

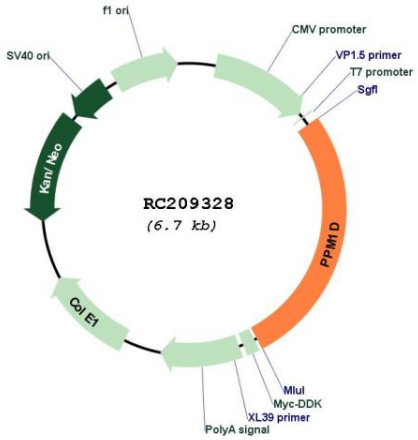
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

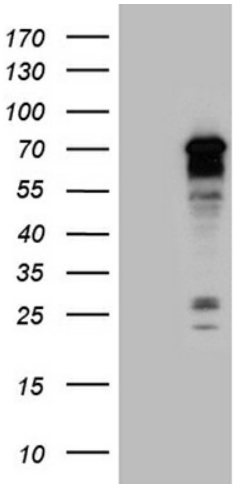
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_003620.4
RefSeq Size:	3163 bp
RefSeq ORF:	1818 bp
Locus ID:	8493
UniProt ID:	O15297
Cytogenetics:	17q23.2
Domains:	PP2C
Protein Families:	Druggable Genome, Phosphatase
Protein Pathways:	p53 signaling pathway
MW:	66.5 kDa
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, Jul 2008]

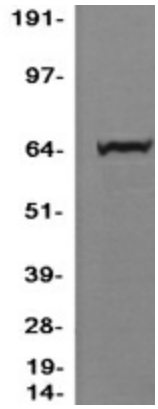
Product images:



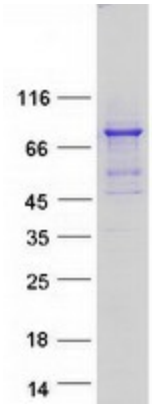
Circular map for RC209328



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PPM1D (Cat# RC209328, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PPM1D (Cat# [TA811187])(1:2000). Positive lysates [LY418539] (100ug) and [LC418539] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY418539]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209328 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PPM1D protein (Cat# [TP309328]). The protein was produced from HEK293T cells transfected with PPM1D cDNA clone (Cat# RC209328) using MegaTran 2.0 (Cat# [TT210002]).