

## Product datasheet for **RG209328**

### PPM1D (NM\_003620) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PPM1D (NM_003620) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PPM1D
Synonyms:	IDDGIP; JDVS; PP2C-DELTA; WIP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG209328 representing NM\_003620  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGCGGGGCTGTACTCGCTGGGAGTGAGCGTCTTCTCCGACCAGGGCGGGAGGAAGTACATGGAGGACG  
 TTAACAATCGTTGTGGAGCCGAACCGACGGCTGAAGAAAAGCCCTCGCCGCGGGTGGTGTCTCA  
 GCCGTTGCTCCGCGGCCGTCGCGGCCGCCCTTCCCGCGCGCAAGTCTCGGGAAAGGCCAGCGGTG  
 GCAGCCCGAGAGGCTCGCGACCTCTCCCGACCGCGGGGCTCGCCGGCACCTAGCCGCTGCTGCCGC  
 GCCGTTCTCCGTGGCCTTTTTGCGCGTGTGCGACGGGACGGCGGGGAGGGCGGCACAGTTGCCCG  
 GGAGCACTGTGGGGTTTCATCAAGAAGCAGAAGGGTTTACCTCGTCCGAGCCGGCTAAGTTTGCCT  
 GCCATCCGCAAAGGCTTCTCGTTGTACCTTGCATGTGAAGAACTGGCGAATGGCCAAAGACTA  
 TGACGGGTCTTCTAGCACATCAGGGACAAGTCCAGTGTGGTATCATTCCGGGCATGAAGATGTATGT  
 AGCTCACGTAGGTGACTCAGGGGTGGTCTTGAATTCAGGATGACCCGAAGGATGACTTTGTCAGAGCT  
 GTGGAGGTGACACAGGACCAAGCCAGAACTCCCAAGGAAAGAGAACGAATCGAAGGACTTGGTGGGA  
 GTGAATGAACAAGTCTGGGGTGAATCGTGTAGTTTGAAGACGCTCGACTCACTCACAATGGACCTGT  
 TAGAAGGAGCACAGTTATTGACCAGATTCCTTTTCTGGCAGTAGCAAGAGCACTTGGTGAATTTGGAGC  
 TATGATTTCTCAGTGGTGAATTTGGTGTACCTGAACCAGACACAAGTGTCCCACTCTTGACCCTC  
 AGAAGCACAAGTATATTATGGGGAGTGATGGACTTTGAATATGATCCACAACAAGATGCCATCTC  
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 CAGCCCTTCTATAATAGTCAAGAACTGTGTGATGACTCCTTCCCATGTTCTACACCACAGTCAAG  
 TCACTGGAGGAGGATCCATGGCCAAGGGTGAATCTAAGGACCATATACCTGCCCTGGTTCGTAGCAATG  
 CCTTCTCAGAGAATTTTTAGAGGTTTCACTGAGATAGCTCGAGAGAATGTCCAAGGTGTAGTCATACC  
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 AATAATAGCCTTCAATTGGCCTTGTGCCTACTAATCAACAACACTGTCATGGACCAAAAAATTTGA  
 AGATGTCAACTCTGGCCAAATGAAAGCCCAAGAAATTGAAAGAACCCTCCAACAACTTTAAAAGGAC  
 ATTAGAAGAGTCCAATTCTGGCCCCTGATGAAGAAGCATAGACGAAATGGCTTAAGTCGAAGTAGTGGT  
 GCTCAGCCTGCAAGTCTCCCAACCTCACAGCGAAAGAACTCTGTTAACTCACCATGCGACGCAGAC  
 TTAGGGCCAGAAGAAAATTGAAATCCTTACTTCATCAACACAGGAAAAGTGTGTGTGTTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG209328 representing NM\_003620  
 Red=Cloning site Green=Tags(s)

MAGLYSLGVSVFSDQGGGRKYMEDVTQIVVEPEPTAEKPSRRSLSQPLPPRPSAALPGGEVSGKGPV  
 AAREARDPLPDAGASPAPSRCCRRSSVAFFAVCDGHGGREAAQFAREHLWGFIKKQKGFSSPEPAKVCA  
 AIRKGF LACHLAMWKKLAEPKMTGLPSTSGTTASVVIIRGMKMYVAHVGDGSGVVLGIQDDPKDDFVRA  
 VEVTQDHPKPELKERERIEGLGGSVMNKSQVNRVWKRPRLTHNGPVRRSTVIDQIPFLAVARALGDLWS  
 YDFFSGEFVVSPEPDTSVHTLDPQKHXYIILGSDGLWNMIPQDAISMCQDQEEKKYLMEHGQSCAKML  
 VNRALGRWRQMLRADNTSAIVICISPEVDNQGNTNEDELNLNLDSPSYNSQETCVMTSPCSTPPVK  
 SLEEDPWPRVNSKDHPALVRSNAFSENFLEVSAEIARENVQGVVIPS KDPEPLEENKALTLRIHDSL  
 NNSLPIGLVPTNSTNTVMDQKNLKMSTPGQMQAEIERPPTNFKRTLEESNSGPLMKKHRRNGLSRSSG  
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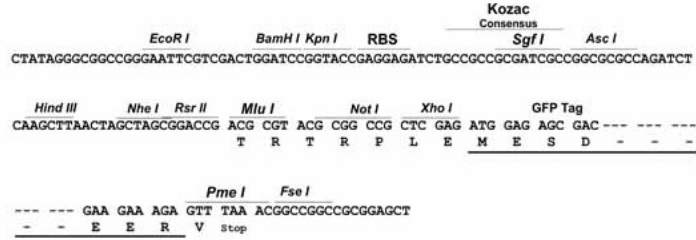
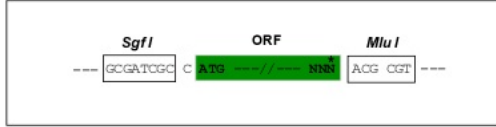
TRTRPLE – GFP Tag – V

**Restriction Sites:**

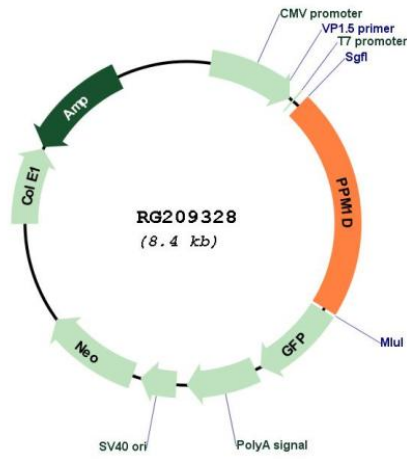
SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**



ACCN: NM\_003620

ORF Size: 1815 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<p><a href="#">NM_003620.2</a>, <a href="#">NP_003611.1</a></p>
<b>RefSeq Size:</b>	<p>3163 bp</p>
<b>RefSeq ORF:</b>	<p>1818 bp</p>
<b>Locus ID:</b>	<p>8493</p>
<b>UniProt ID:</b>	<p><a href="#">O15297</a></p>
<b>Cytogenetics:</b>	<p>17q23.2</p>
<b>Domains:</b>	<p>PP2C</p>
<b>Protein Families:</b>	<p>Druggable Genome, Phosphatase</p>
<b>Protein Pathways:</b>	<p>p53 signaling pathway</p>

**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]