

## Product datasheet for **RG210596**

### PITRM1 (NM\_014889) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PITRM1 (NM_014889) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PITRM1
Synonyms:	MP1; PreP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210596 representing NM_014889 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGGCGCTGCGGGCGGCAGGGCCTGTGTGTGCTGAGGCGGCTGAGCGGGACATGCACACCACA  
GAGCGTGGCGATGGAACAGTAACCGGGCTGTGAGAGGGCTCTGCAGTATAAACTAGGAGACAAGATCCA  
TGGATTCACCGTAAACCAGGTGACATCTGTTCCCGAGCTGTTCTGACTGCAGTGAAGCTACCCATGAT  
GACACAGGAGCCAGGTATTTACACCTGGCCAGAGAAGACACGAATAATCTGTTCCAGCGTGCAGTTCGGTA  
CCACTCCCATGGACAGTACTGGTTCCTCACATTCTTGAGCATACTGTCCTTTGTGGGTCTCAGAAATA  
TCCGTGCAGAGACCCTTTCTTCAAATGTTGAACCGGTCCCTCTCCACGTTTCATGAACGCCCTTCACAGCT  
AGTGATTACTGTGTATCCATTTCCACACAAAATCCCAAGGACTTTTCAGAATCTCCTCTCGGTGTATT  
TGGATGCCACCTTTTCCCATGTTTACGCGAGCTGGATTTCTGGCAGGAAGGATGGCGGCTGGAACATGA  
GAATCCGAGCGACCCCGAGCGCCTTGGTCTTTAAAGGAGTCGCTTTAATGAGATGAAGGGAGCGTTT  
ACAGACAATGAGAGGATATTCTCCAGCACCTTCAGAACAGACTTCTCCCGACCACAGTACTCAGTGG  
TCTCCGGGGTGACCCACTGTGCATCCCGAGCTTACATGGGAGCAGCTTAAGCAGTTTCATGCCACTCA  
CTATCACCAAGCAATGCTAGGTTCTTCACGTACGGTAATTTCCATTAGAACAGCATCTGAAACAAATT  
CAGGGAAGCACTGAGCAAATTCAGAAAATGAACCAAGCAGTGGTCCAGCTCAGACACCCTGGG  
ACAAGCCTAGGGAATTCAGATAACATGTGGCCGGATTTCATTTGCTACAGATCCCTCTAAACAAACAAC  
CGTCAGCGTTAGCTTCTTACCAGCATCACCGACACATTTGAAGCCTTCACATTAAGTCTTCTGTCT  
TCACTCTGACTTCTGGGCCAATTCTCCCTTTTACAAAGCCTTGATTGAATCTGGCCTTGGCACAGACT  
TTTCTCTGATGTTGGATATAATGGCTACACGAGGGAGGCCTACTTTAGTGTGGCCTCCAAGGGATTGT  
GGAGAAAGACATTGAGACCGTCAGAAGCCTCATAGACAGAACGATTGATGAAGTAGTTGAGAAAGGATTT  
GAAGATGATCGAATTGAGGCTTTACTTCATAAAATTTGAAATACAGATGAAACATCAGTCTACCAGCTTTG  
GGCTGATGCTGACATCATACATAGCTTCTGCTGGAACCATGATGGGACCTGTGGAGCTTTGAAGTT  
GGGAAATCAGTTAGCTAAATTCAGACAGTGCCTGCAGGAAAATCCAAAATTTTGAAGAAAAAGTAAAA



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CAGTATTTAAGAATAACCAGCATAAGCTGACTTTATCGATGAGGCCAGATGACAAGTATCACGAGAAGC  
 AGGCACAGGTGGAAGCCACGAAGCTCAAGCAGAAGGTCGAGGCTCTGTCCCCGGAGACAGGCAGCAGAT  
 CTACGAGAAAGGTCTAGAATTACGGAGTCAACAAGCAAACCTCAAGATGCCTCTTGTCTGCCAGCGTTG  
 AAAGTTTCCGATATTGAACCCACCATACCTGTCACAGAGTTGGACGTGGTCTGACAGCTGGAGATATCC  
 CTGTTCACTGCGCCAGCCACCAATGGCATGGTGTATTTCCGGGCTTCTCCAGCCTGAACACACT  
 CCCCAGGAGCTGAGGCCCTATGTGCCCTCTTCTGCAGCGTCTCACCAGCTGGGCTGCGGCCCTTCTT  
 GACTACCGGGAGCAGGCTCAGCAGATAGAATTGAAGACCGGAGGGATGAGTGCTTCTCCCCAGTGCTCC  
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 GCCAGACATGATGCAGCTATGGAGTGAAATATTTAACAACCCGTGCTTTGAAGAAGAGGAGCACTTCAAG  
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 TCAGGGCAGGCCGACCCTCACGCCGAGGGACCTGCAGGAGACCTTCAGCGGGATGGATCAGGTGCG  
 GCTGATGAAGAGGATTGCAGAAATGACAGATATCAAACCCATCCTGAGGAAGCTCCCACGTATCAAGAAA  
 CACTTGTAAATGGTATAATAGAGGTGTTCAAGTGAATGCGACTCCTCAGCAGATGCCTCAGACAGAAA  
 AAGCGGTGAAGACTTCTTAGAAGCATCGGTGAGTAAAAAGGAACGGAGGCTGTGCGCCACACAC  
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 AAGCTGGTCAAGAACCCACCTCAAGCCCTGGCAGATGAAGACTCACTTCTGATGCCCTTCCCGTGA  
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 ACGTTTGTGACTGCCAAATCTTGCATACAGAAATTCGAGAAAAAGGCGGTGCTTATGGTGGAGGCGCA  
 AAACCTCAGCCACAATGGGATTTTACCCTTTACTCTTACAGGGACCCAAATACAATAGAGACGCTCCAGT  
 CTTTTGGGAAGGCTGTCGACTGGGCTAAGTCTGAAAAATTCACACAGCAAGACATCGACGAAGCCAACT  
 TTCTGTCTTCAACCGTAGATGCTCCTGTCGCTCCTTCAGACAAAGGAATGGACCACTTCTGTACGGC  
 CTCTCGGATGAGATGAAGCAGGCCACAGAGAGCAGCTCTTGTGTGAGCCACGACAAGCTCCTGGCCG  
 TGAGCGATAGGTACCTCGGCACTGGGAAAAGCACACGGCCTGGCCATCCTCGGACCCGAGAACCCGAA  
 AATTGCCAAGGACCCATCCTGGATCATCCGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG210596 representing NM\_014889  
 Red=Cloning site Green=Tags(s)

MWRCGGRQGLCVLRRLSGHAHHRRAWRWNNSRACERALQYKLGDKIHGFTVNQVTSVPELFLTAVKLTHD  
 DTGARYLHLAREDTNNLFSVQFRTTPMDSTGVPHILEHTVLCGSQKYPDRDPFFKMLNRSLSLFMNAFTA  
 SDYTVYPFSTQNPQDFQNLQSVYLDATFFPCLRELDWFQEGWRLEHENPSDPQTPLVFKGVVFNEMKGF  
 TDNERIFSQHLQNRLLPDHTYSVVSGDPLCIPELTWEQLKQFHATHYHPSNARFFTYGNFPLEQHLKQI  
 HEEALSKFQKIEPSTVPAQTPWDKPREFQITCGPDSFATDPSKQTTVSVSFLLPDITDTFEAFTLSLLS  
 SLLTSGPNSPFYKALIESGLGTDSPDVGYNGYTREAYFSVGLQGIVEKDIETVRSIDRTIDEVVEKGF  
 EDDRIEALLHKIEIQMKHQSTSFGLMLTSYIASCWNHGDGPVELLKLGNQLAKFRQCLQENPKFLQEKVK  
 QYFKNNQHKLTLSPRPDDKYHEKQAQVEATKLKQKVEALSPGDRQQIYEKLELRSQQSKPQDASCLPAL  
 KVSIEPTIPVTELDVVLTAGDIPVQYCAQPTNGMVYFRAFSSLNTPPEELRPYVPLFCSVLTKLGCGLL  
 DYREQAQQIELKTGGMSASPHVLPDDSHMDTYEQGVLFSSCLDRNLPDMMQLWSEIFNPNCFEEEEHFK  
 VLVKMTAQELANGIPDSGHLIASIRAGRTLTPAGDLQETFSGMDQVRLMKRIAEMTDIKPILRKLPRIKK  
 HLLNGDNMRCVSNATPQQMPQTEKAVEDFLRSIGRSKKERRPVRPHTVEKVPVSSSGGDAHVPHGSQVIR  
 KLVMEPTFKPWQMKTHFLMPFPVNYVGEICRTVPYTPDHPASFEILARLMTAKFLHTEIREKGGAYGGGA  
 KLSHNGIFTLYSYRDPNTIETLQSFKAVDWAKSGKFTQQDIDEAKLSVFSVTDAPVAPSDKGMDFLYG  
 LSDEMKQAHREQLFAVSHDKLLAVSDRYLGTGKSTHGLAILGPENPKIAKDPSTWIR

TRTRPLE - GFP Tag - V

**Restriction Sites:**

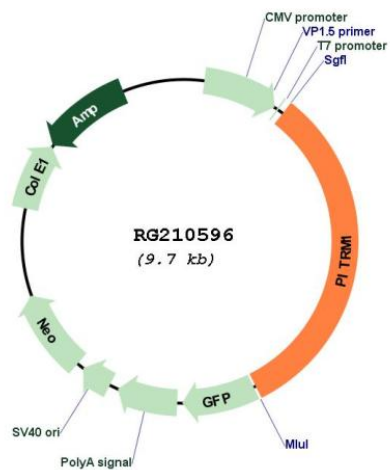
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_014889

ORF Size: 3111 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_014889.2</a>, <a href="#">NP_055704.2</a></p>
<b>RefSeq Size:</b>	<p>3465 bp</p>
<b>RefSeq ORF:</b>	<p>3114 bp</p>
<b>Locus ID:</b>	<p>10531</p>
<b>UniProt ID:</b>	<p><a href="#">Q5JRX3</a></p>
<b>Cytogenetics:</b>	<p>10p15.2</p>
<b>Domains:</b>	<p>Peptidase_M16_C</p>
<b>Protein Families:</b>	<p>Druggable Genome, Protease</p>
<b>Gene Summary:</b>	<p>The protein encoded by this gene is an ATP-dependent metalloprotease that degrades post-cleavage mitochondrial transit peptides. The encoded protein binds zinc and can also degrade amyloid beta A4 protein, suggesting a possible role in Alzheimer's disease. [provided by RefSeq, Dec 2016]</p>