

Product datasheet for **RG216147**

PAM (NM_138822) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAM (NM_138822) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PAM
Synonyms:	PAL; PHM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RG216147 representing NM_138822
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGCTGGCCGCTCCCTAGCCTGCTAGTTCTCCTTGTGTTTTTCCAAGCAGCTGTTTGGCTTCCGAAGCC
 CACTTTCTGTCTTTAAGAGGTTTAAAGAACTACCAGACCATTTTCCAATGAATGTCTTGGTACCACCAG
 ACCCGTAGTTCCTATTGATTCATCAGATTTTGCATTGGATATTCGCATGCCTGGGTTACACCTAAACAG
 TCCGATACATACTTCTGCATGTCTATGCGAATACCAGTGGATGAGGAAGCCTTCGTGATTGACTTCAAGC
 CTCGAGCCAGCATGGATACTGTCCATCACATGTTACTTTTTGGATGCAATATGCCTTCATCCACTGGAAG
 TTAGTGGTTTTGTGATGAAGGAACCTGTACAGATAAAGCCAATATTCTGTATGCCTGGGCGAGAAATGCT
 CCCCTACCCGGCTCCCAAAGGTGTGGATTGAGAGTGGAGGAGAGACTGGAAGTAAATACTTTGTAC
 TACAGGTACACTATGGGGATATTAGTGTCTTTAGAGATAATAACAAGGACTGTTCTGGTGTGCTTACA
 CCTCACACGTCTGCCACAGCCTTAATTGCTGGCATGTACCTTATGATGTCTGTTGACACTGTTATCCCA
 GCAGGAGAAAAAGTGGTGAATTCGACATTTTCATGCCATTATAAAAAATTCCAATGCATGTCTTTGCCCT
 ATAGAGTTCACACTCACCATTTAGGTAAGGTAGTAAGTGGATACAGAGTAAGAAATGGACAGTGGACACT
 GATTGGACGGCAGAGCCCTCAGCTGCCACAGGCTTCTACCCTGTGGGCGATCCAGTTGATGTAAGTTTT
 GGTGACCTACTGGCTGCAAGATGTGATTCACTGGTGAAGGAAGGACAGAAGCCACACACATTGGTGGCA
 CGTCTAGTGATGAAATGTGCACTTATACATTATGATTACATGGAAGCCAAGCATGCAGTTTCTTTTCAT
 GACCTGTACCCAGAATGTAGTCCAGATATGTTGAGAACCATACCACCAGAGGCCAACATCCAATTCCC
 GTGAAGTCTGATATGTTATGATGCATGAACATCATAAAGAAACAGAATATAAAGATAAGATTCCCTTAC
 TACAGCAGCCAAAACGAGAAGAAGAAGTGTAGACCAGGGTATTCTATTCACTACTTTCCAAGT
 GCTAGGAGAAAAGGAAGATGTTGTTTCATGTGCACAAATAAATCCTACAGAAAAGGCAGAATCAGAGTCA
 GACCTGGTAGCTGAGATTGCAAATGTAGTCCAAAAAAGGATCTTGGTGCATCTGATGCCAGAGAGGGTG
 CAGAACATGAGAGGGTAAATGCTATTCTTGTGAGAGACAGAATTCACAAATCCACAGACTAGTATCTAC
 CTTGAGGCCACCAGAGAGCAGAGTTTTCTCATTACAGCAGCCCCACCTGGTGAAGGCACCTGGGAACCA
 GAACACACAGGAGATTTCCACATGGAAGAGGCACTGGATTGGCCTGGAGTATACTTGTACCAGGCCAGG
 TTTCTGGGGTGGCTCTAGACCCTAAGAATAACCTGGTGTATTTCCACAGAGGTGACCATGTCTGGGATGG
 AAACCTGTTTACAGCAAGTTTGTACCAGCAAATAGGACTCGGACCAATTGAAGAAGACACTATTCTT
 GTCATAGATCCAATAATGCTGCAGTACTCCAGTCCAGTGGAAAAATCTGTTTTACTTGCCACATGGCT
 TGAGTATAGATAAAGATGGGAATTATTGGGTACAGACGTGGCTCTCCATCAGGTGTTCAAACCTGGATCC
 AAACAATAAAGAAGGCCCTGTATTAATCCTGGGAAGGAGCATGCAACCAGGCAGTGACCAGAATCACTTC
 TGTCAACCCTACTGATGTGGCTGTGGATCCAGGCACTGGAGCCATTTATGTATCAGATGGTACTGCAACA
 GCAGGATTGTGCAGTTTTACCAAGTGGAAAGTTCATCACACAGTGGGGAGAAGAGTCTTCAGGGAGCAG
 TCCTCTGCCAGGCCAGTTCAGTGTCTCACAGCTTGGCTCTTGTGCCTCTTTGGGCAATTATGTGTG
 GCAGACCCGGAAAATGGTCGGATCCAGTGTAAAACTGACACCAAAGAATTTGTGAGAGAGATTAAGC
 ATTCATCATTTGGAAGAAATGATTTGCAATTTATATACCAGGCTTGCTCTTTGCAGTGAATGGGAA
 GCCTCATTTTGGGACCAAGAACCTGTACAAGGATTTGTGATGAACTTTTCCAATGGGAAATTAAGAC
 ATCTTCAAGCCAGTGCAGCAAGCACTTTGATATGCCTCATGATATTGTTGCATCTGAAGATGGGACTGTGT
 ACATTGGAGATGCTCATACCAACACCGTGTGGAAGTTCACCTTGACTGAGAAAATTGGAACATCGATCAGT
 TAAAAAGGCTGGCATTGAGGTCCAGGAAATCAAAGGAAAGGGAAGTGGAGGCTTAAACCTTGGTAATTTT
 TTTGCAAGCCGTAAGGGCTACAGTCGAAAAGGTTTACCAGGCTTAGCACTGAGGGCAGTGACCAAGAGA
 AAGAGGATGATGGAAGTGAATCAGAAGAGGAGTATTACAGACCTTGCCTGCGCTCGCACCTTCTCCTC
 C

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG216147 representing NM_138822
 Red=Cloning site Green=Tags(s)

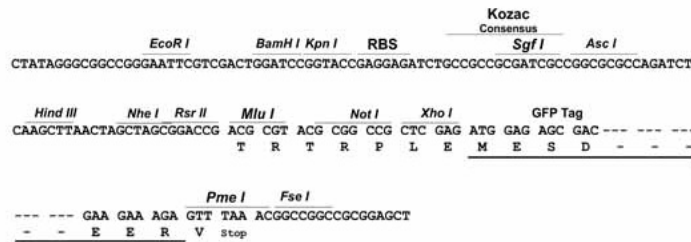
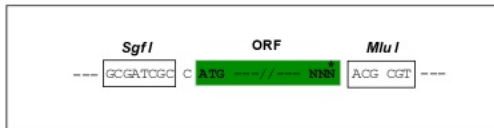
MAGRVPSLLVLLVFPSSCLAFRSPLSVFKRFKETTRPFSNECLGTTTRPVVPIDSSDFALDIRMPGVTPKQ
 SDTYFCMSMRIPVDEEAFVIDFKPRASMDTVHHMLLFGCNMPSSTGSYWFCEGTCTDKANILYAWARNA
 PPTRLPGKGVFRVGGETGSKYFVLQVHYGDISAFRDNNKDCSGVSLHLTRLPQPLIAGMYLMMSVDVIP
 AGEKVVNSDISCHYKNYPMHVFA YRVHTHHLGKVVSGYRVRNGQWTLIGRQSPQLPQAFYPVGHVVDVSF
 GDLLAARCVFTGEGRTEATHIGGTSSDEMCNLYIMYYEAKHAVSFMTCTQNVAPDMFRTIPPEANIPIP
 VKSDMVMMEHHKETEYKDKIPLLQQPKREEEVLDQGDYFSLLSKLLGEREDVVHVHKYNPTEKAESES
 DLVAEIANVVQKDLGRSDAREGAEHERGNAILVRDRIHKFHRLVSTLRPPESRVFSLQQPPPGEGTWEP
 EHTGDFHMEEALDWPGVYLLPGQVSGVALDPKNNLVIFHRGDHVWDGNSFDSKFVYQQIGLGP IEEEDTIL
 VIDPNNAAVLQSSGKNLFYLPGLSIDKDGNYWVDVALHQVFKLDPNNKEGPVILGRSMQPGSDQNH
 CQPTDVAVDPGTGAIYVSDGYCNSRIVQFSPSGKFITQWGEESGSSPLPGFTVPHSLALVPLLGQLCV
 ADRENGRIQCFTDTKEFVREIKHSSFRNVFAISYIPGLLFAVNGKPHFGDQEPVQGFVMNFNGEIID
 IFKPVKHFDMPHDIVASEDGTYYIGDAHTNTVWKFTL TEKLEHRSVKKAGIEVQEIKGKSGGLNLGNF
 FASRKGYSRKGFDRLSTEGSDQEKEDDGESEEEYSAPLPALAPSSS

TRTRPLE - GFP Tag - V

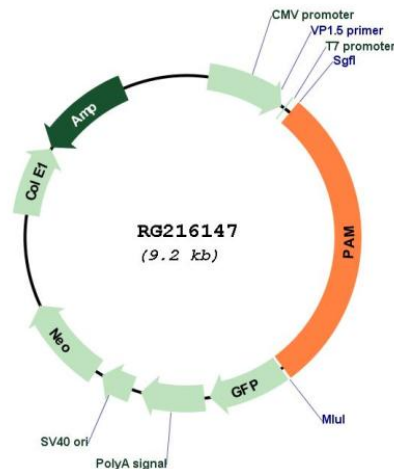
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_138822

ORF Size: 2661 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.

RefSeq:	NM_138822.2 , NP_620177.1
RefSeq Size:	5098 bp
RefSeq ORF:	2664 bp
Locus ID:	5066
UniProt ID:	P19021
Cytogenetics:	5q21.1
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	<p>This gene encodes a multifunctional protein. The encoded preproprotein is proteolytically processed to generate the mature enzyme. This enzyme includes two domains with distinct catalytic activities, a peptidylglycine alpha-hydroxylating monooxygenase (PHM) domain and a peptidyl-alpha-hydroxyglycine alpha-amidating lyase (PAL) domain. These catalytic domains work sequentially to catalyze the conversion of neuroendocrine peptides to active alpha-amidated products. Alternative splicing results in multiple transcript variants, at least one of which encodes an isoform that is proteolytically processed. [provided by RefSeq, Jan 2016]</p>