

Product datasheet for **RC202074**

PAM (NM_138821) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAM (NM_138821) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PAM
Synonyms:	PAL; PHM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC202074 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCTGGCCGCGTCCCTAGCCTGCTAGTTCTCCTTGTGTTTTCCAAGCAGCTGTTTGGCTTCCGAAGCC
CACTTTCTGTCTTTAAGAGGTTTAAAGAACTACCAGACCATTTTCCAATGAATGTCTTGGTACCACCAG
ACCCGTAGTTCCTATTGATTCATCAGATTTTGCATTGGATATTCGCATGCCTGGGGTTACACCTAAACAG
TCCGATACATACTTCTGCATGTCTATGCGAATACCAGTGGATGAGGAAGCCTTCGTGATTGACTTCAAGC
CTCGAGCCAGCATGGATACTGTCCATCACATGTTACTTTTTGGATGCAATATGCCTTCATCCACTGGAAG
TTACTGGTTTTGTGATGAAGGAACCTGTACAGATAAAGCCAATATTCTGTATGCCTGGGCGAGAAATGCT
CCCCCTACCCGGCTCCCCAAAGGTGTGGATTGAGAGTGGAGGAGAGACTGGAAGTAAATACTTTGTAC
TACAGGTACACTATGGGGATATTAGTGCTTTTAGAGATAATAACAAGGACTGTTCTGGTGTGCTTACA
CCTCACACGTCTGCCACAGCCTTAATTGCTGGCATGTACCTTATGATGTCTGTTGACACTGTTATCCCA
GCAGGAGAAAAAGTGGTGAATTCTGACATTTTCATGCCATTATAAAAAATTATCCAATGCATGTCTTTGCC
ATAGAGTTCACACTCACCATTTAGGTAAGGTAGTAAGTGGATACAGAGTAAGAAATGGACAGTGGACACT
GATTGGACGGCAGAGCCCTCAGCTGCCACAGGCTTCTACCCTGTGGGCGATCCAGTTGATGTAAGTTTT
GGTGACCTACTGGCTGCAAGATGTGATTCACTGGTGAAGGAAGGACAGAAGCCACACACATTGGTGGCA
CGTCTAGTGATGAAATGTGCACTTATACATTATGATTACATGGAAGCCAAGCATGCAGTTTCTTTTCAT
GACCTGTACCCAGAATGTAGCTCCAGATATGTTTACAACCATACCACCAGAGGCCAACATTCCAATTTCC
GTGAAGTCTGATATGTTATGATGCATGAACATCATAAAGAAACAGAATATAAAGATAAGATTCTTTTAC
TACAGCAGCCAAAACGAGAAGAAGAAGTGTAGACCAGGATTTCCACATGGAAGAGGCACTGGATTG
GCCTGGAGTATACTTGTACCAGGCCAGGTTTCTGGGGTGGCTCTAGACCCTAAGAATAACCTGGTGATT
TCCACAGAGGTGACCATGTCTGGGATGGAACCTCGTTTACAGCAAGTTTGTACCAGCAAAATAGGAC
TCGGACCAATTGAAGAAGACACTATTCTTGTATAGATCCAAATAATGCTGCAGTACTCCAGTCCAGTGG
AAAAATCTGTTTTACTTGCCACATGGCTTGTAGTATAGATAAAGATGGGAATTATTGGGTACAGACGTG
GCTCTCCATCAGGTGTTCAAACCTGGATCCAAACAATAAAGAAGGCCCTGTATTAATCCTGGGAAGGAGCA
TGCAACCAGGCAGTGACCAGAATCACTTCTGTCAACCCACTGATGTGGCTGTGGATCCAGGCACTGGAGC
CATTTATGTATCAGATGGTTACTGCAACAGCAGGATTGTGCAGTTTTACCAAGTGGAAAGTTTCATCACA
CAGTGGGAGAAAGTCTTCAGGGAGCAGTCTCTGCCAGGCCAGTTCACTGTTCTCACAGCTTGCTC
TTGTGCCTCTTTGGGCCAATTATGTGTGGCAGACCGGAAAATGGTCCGATCCAGTGTTTTAAACTGA
CACCAAAGAAATTTGTGAGAGAGATTAAGCATTATCATTGGAAGAAATGTATTTGCAATTTTCATATATA
CCAGGCTTGCTCTTTGCAGTGAATGGGAAGCCTCATTGTTGGGACCAAGAACCTGTACAAGGATTTGTGA
TGAACTTTTCCAATGGGAAATTCGACATCTCAAGCCAGTGCAGCAAGCACTTTGATATGCCTCATGA
TATTGTTGCATCTGAAGATGGGACTGTGTACATTGGAGATGCTCATACCAACACCGTGTGGAAAGTTCAAC
TTGACTGAGAAATGGAACATCGATCAGTTAAAAAGGCTGGCATTGAGGTCCAGGAAATCAAAGAAGCCG
AGGCAGTTGTTGAAACAAAATGGAGAACAACCCACCTCCTCAGAATTGCAGAAGATGCAAGAGAAACA
GAAACTGATCAAAGACCAGGCTCGGGAGTGCCTGTTGTTCTATTACAACCTTCTGGTTATCCGGTG
GTTGCTCTGTGCCATTGCCATATTTATTCGGTGGAAAAAATCAAGGGCCTTTGGAGATTCTGAACACA
AACTCGAGACGAGTTCAGGAAGAGTACTGGGAAGATTTAGAGGAAAGGGAAGTGGAGGCTTAAACCTTGG
TAATTTCTTTGCAAGCCGTAAGGGCTACAGTCGAAAAGGTTTGACCGGCTTAGCACTGAGGGCAGTGAC
CAAGAGAAAGAGGATGATGGAAGTGAATCAGAAGAGGAGTATTACGACCTCTGCCTGCGCTCGCACCTT
CCTCCTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202074 protein sequence
 Red=Cloning site Green=Tags(s)

MAGRVPSSLVLLVFPSSCLAFRSPLSVFKRFKETTRPFSNECLGTTTRPVVPIIDSSDFALDIRMPGVTPKQ
 SDTYFCMSMRIPVDEEAFVIDFKPRASMDTVHHMLLFGCNMPSSTGSYWFCEGTCTDKANILYAWARNA
 PPTRLPGVGFVRVGGETGSKYFVLQVHYGDISAFRDNKDCSGVSLHLTRLPQPLIAGMYLMMSVDTVIP
 AGEKVVNSDISCHYKNYPMHVFAIRVHTHHLGKVVSGYRVRNGQWTLIGRQSPQLPQAFYPVGHVDPVVSF
 GDLLAARCVFTGEGRTEATHIGGTSSDEMCNLYIMYYEAKHAVSFMTCTQNVAPDMFRTIPPEANIPIP
 YKSDMVMMEHHKETEYKDKIPLLQQPKREEEVLDQDFHMEALDWPVGYLLPGQVSGVALDPKNNLVI
 FHRGDHVWDGNSFDSKFVYQQIGLGP IEEEDTILVIDPNNAAVLQSSGKNLFYLP HGLSIDKDGNVWTDV
 ALHQVFKLDPNNKEGPVILGRSMQPGSDQNHFCQPTDVAVDPGTGAIYVSDGYCNSRIVQFSPSGKFIT
 QWGESSGSSPLPGQFTVPHSLALVPLLGLCVADRENGRIQCFTDTEKFVREIKHSSFGRNVFAISYI
 PGLLFAVNGKPHFGDQEPVQGFVMNFSNGEIIDIFKPVKHFDMPHDIVASEDGTYYIGDAHTNTVWKFT
 LTEKLEHRSVKAGIEVQEIKEAEAVVETKMNKPTSSELQKMQEKLKEKPGSGVPVLLITLLVIPV
 VLLAIAIFIRWKKSRAGDSEHKLETSSGRVLGRFRGKSGGLNLGNFFASRKGYSRKGFDRLSTEGSD
 QEKEDDGSEEEEEYSAPLPALAPSSS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6140_h09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

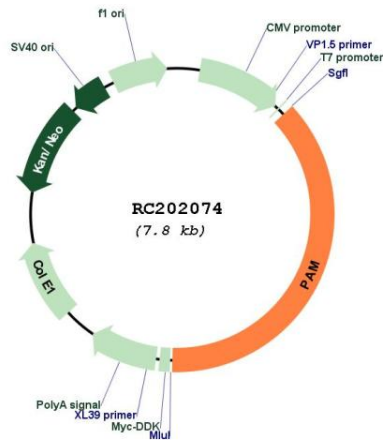
Cloning sites used for ORF Shuttling:



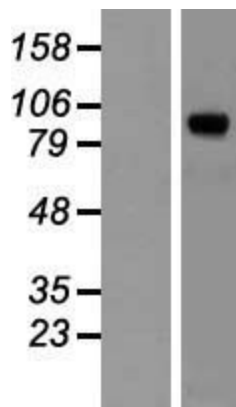
* The last codon before the Stop codon of the ORF

ACCN:	NM_138821
ORF Size:	2598 bp
OTI Disclaimer:	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:	<ol style="list-style-type: none">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_138821.2
RefSeq Size:	5035 bp
RefSeq ORF:	2601 bp
Locus ID:	5066
UniProt ID:	P19021
Cytogenetics:	5q21.1
Protein Families:	Druggable Genome, Transmembrane
MW:	96.3 kDa
Gene Summary:	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]

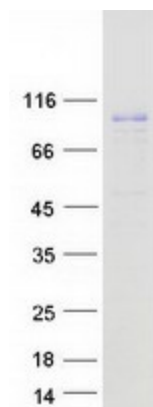
Product images:



Circular map for RC202074



Western blot validation of overexpression lysate (Cat# [LY424457]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC212581] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PAM protein (Cat# [TP302074]). The protein was produced from HEK293T cells transfected with PAM cDNA clone (Cat# RC202074) using MegaTran 2.0 (Cat# [TT210002]).