

Product datasheet for **SC124251**

PAM (NM_138822) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAM (NM_138822) Human Untagged Clone
Tag:	Tag Free
Symbol:	PAM
Synonyms:	PAL; PHM
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_138822, the custom clone sequence may differ by one or more nucleotides

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ATGGCTGGCCGCGTCCCTAGCCTGCTAGTTCCTCTGTTTTTCCAAGCAGCTGTTTGGCTTTCCGAAGCC
CACTTTCTGTCTTTAAGAGGTTTAAAGAACTACCAGACCATTTCCAATGAATGTCTTGGTACCACCAG
ACCCGTAGTTCTATTGATTCATCAGATTTTGCATTGGATATTCGCATGCCTGGGGTTACACCTAAACAG
TCCGATACATACTTCTGCATGTCTATGCGAATACCAGTGGATGAGGAAGCCTTCGTGATTGACTTCAAGC
CTCGAGCCAGCATGGATACTGTCCATCAGATGTTACTTTTTGGATGCAATATGCCTTCATCCACTGGAAG
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CCCCCTACCCGGCTCCCCAAAGGTGTTGGATTGAGAGTTGGAGGAGAGACTGGAAGTAAACTTTGTAC
TACAGGTACTACTATGGGGATATTAGTGTCTTTAGAGATAATAACAAGGACTGTTCTGGTGTGCTTACA
CCTCACACGTCTGCCACAGCCTTAATTGCTGGCATGTACCTTATGATGTCTGTTGACACTGTTATCCCA
GCAGGAGAAAAAGTGGTGAATTCTGACATTTATGCCATTATAAAAAATTCCAATGCATGTCTTTGCCT
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GATTGGACGGCAGAGCCCTCAGCTGCCACAGGCTTCTACCCTGTGGGGCATCCAGTTGATGTAAGTTTT
GGTGACCTACTGGCTGCAAGATGTGATTTCACTGGTGAAGGAAGGACAGAAAGCCACACACATTGGTGGCA
CGTCTAGTGATGAAATGTGCAACTTATACATTATGTATTACATGGAAGCCAAGCATGCAGTTTCTTTCAT
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GCTAGGAGAAAAGGAAGATGTTGTTTATGTGCACAAAATAAATCTACAGAAAAGGCAGAATCAGAGTCA
GACCTGGTAGCTGAGATTGCAAAATGTAGTCCAAAAAAGGATCTTGGTCGATCTGATGCCAGAGGGTG
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GAACACACAGGAGATTTCCACATGGAAGAGGCACTGGATTGGCCTGGAGTATACTTGTACCAGGCCAGG
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GTCATAGATCCAAATAATGCTGCAGTACTCCAGTCCAGTGGAAAAATCTGTTTTACTTGCCACATGGCT
TGAGTATAGATAAAGATGGGAATTATTGGGTACAGACGTGGCTCTCCATCAGGTGTTCAAAGTGGATCC
AAACAATAAAGAAGGCCCTGTATTAATCTGGGAAGGAGCATGCAACCAGGCAGTGACCAGAATCACTTC
TGTCACCCACTGATGTGGCTGTGGATCCAGGCACTGGAGCCATTTATGTATCAGATGGTTACTGCAACA
GCAGGATTGTGCAGTTTTCCAAAGTGGAAAGTTCATCACACAGTGGGGAGAAGAGTCTTCAGGGAGCAG
TCCTCTGCCAGGCCAGTTCACTGTTCTCACAGCTTGGCTCTTGTGCCTCTTTGGGCCAATTATGTGTG
GCAGACCCGGAAAATGGTCGGATCCAGTGTAAAAACTGACACCAAGAATTTGTGAGAGAGATTAAGC
ATTCATCATTTGGAAGAAATGATTTTGCATTTTCAATATACCAGGCTTGCTCTTTGCAGTGAATGGGAA
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TAAAAAGGCTGGCATTGAGGTCCAGGAAATCAAAGGAAAGGGAAGTGGAGGCTTAAACCTTGGTAATTTT
TTTGCAAGCCGTAAAGGCTACAGTCGAAAAGGTTTTGACCGCTTAGCACTGAGGGCAGTGACCAAGAGA
AAGAGGATGATGGAAGTGAATCAGAAGAGGAGTATTCAGCACCTCTGCCTCGCACCTTCTCCTCCTC
CTGA
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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_138822 unedited GTCAGCATTTGTATACGACTCATATAGGCGGCCGCGNAATTCGCACCAGCCGTGGTCGCG CAGGTTCTGAATGATGACTGACGCGGGTTTGGGTGATACCCCTCACAGCCCCTGTCATT CGGAGTGATAAGGCACCCGCGCTTAGCCCCAGCGCCAGGGCACGCGAGCGGCGCTGGA GGGAGGAAAGCTCCGCCTGCGGGCCGGACAAAAGTCCCGCTGCCACGGCTTTTTGCC CGCCGCTCGTGACCGAGACGCCCTCGCCGCGCCAGCTCGCTGCTCGCTGGCGGATGGT GTGTGGCCGCGCAAGACGCCCGCGTCCCGGGCCATGAAGTAGCGGCTGCTGGCGGCG CCGCTGCCCAACCGCCAGCCCCAGCCCCGCGCTGCGCTGCCCGTCTCTCCCGCGGGG TCGTATCGGCGTGACATGGCTGCCCGCTCCCTAGCCTGCTAGTTCTCCTTGTTTTCC AAGCAGCTGTTTGGCTTTCCGAAGCCACTTTCTGTCTTTAAGAGGTTTAAAGAACTAC CAGACCATTTTCCAATGAATGTCTTGGTACCACCAGACCCGTAGTTCTATTGATTTCAT AGATTTTGCATTGGATATTCGCATGCCTGGGGTTACACCTAAACAGTCCGATACATACT CTGCATGTCTATGCGAATACCAGTGGATGAGGAAGCCTTCGTGATTGACTTCAAGCCTCG AGCCAGCATGGATACTGCCATCACATGTTACTTTNTGGATGCAATATGCCTTCATCCAC TGAAGTTACTGGTTTTGTGATGAAAGAACCTGTACAGATAAAGCCAATATTCTGTATGC CTGGGCGATGAATGCTNCCCCTACCCCGTCCCAAGTGTGGATTCAAACCTGGAGGAAGA CTGGAAGTAATACTTGTACTACAGTCACTATGGGNATATTATGCTTTAAGATATAACAGA CTGTNTGGGGTGTCTTACC
Restriction Sites:	NotI-NotI
ACCN:	NM_138822
Insert Size:	3950 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<u>NM_138822.1</u> , <u>NP_620177.1</u>
RefSeq Size:	5098 bp
RefSeq ORF:	2664 bp
Locus ID:	5066
UniProt ID:	<u>P19021</u>
Cytogenetics:	5q21.1
Protein Families:	Druggable Genome, Transmembrane

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]

Transcript Variant: This variant (4) lacks two alternate in-frame exons in the 3' coding region compared to variant 5. The encoded isoform (d) is shorter than isoform e. This isoform (d) may undergo proteolytic processing similar to isoform e. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.