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Product datasheet for SC124250

PAM (NM_138821) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAM (NM_138821) Human Untagged Clone
Tag:	Tag Free
Symbol:	PAM
Synonyms:	PAL; PHM
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>NCBI ORF sequence for NM_138821, the custom clone sequence may differ by one or more nucleotides

ATGGCTGGCCGCGTCCCTAGCCTGCTAGTTCTCCTTGTTTTTCCAAGCAGCTGTTTGGCTTTCCGAAGCC
CACTTTCTGTCTTTAAGAGGTTTAAAGAAACTACCAGACCATTTTCCAATGAATGTCTTGGTACCACCAG
ACCCGTAGTTCCTATTGATTCATCAGATTTTGCATTGGATATTCGCATGCCTGGGGTTACACCTAAACAG
TCCGATACATACTTCTGCATGTCTATGCGAATACCAGTGGATGAGGAAGCCTTCGTGATTGACTTCAAGC
CTCGAGCCAGCATGGATACTGTCCATCACATGTTACTTTTTGGATGCAATATGCCTTCATCCACTGGAAG
TTACTGGTTTTGTGATGAAGGAACCTGTACAGATAAAGCCAATATTCTGTATGCCTGGGCGAGAAATGCT
CCCCCTACCCGGCTCCCCAAAGGTGTTGGATTCAGAGTTGGAGGAGAGACTGGAAGTAAATACTTTGTAC
TACAGGTACACTATGGGGATATTAGTGCTTTTAGAGATAATAACAAGGACTGTTCTGGTGTGTCCTTACA
CCTCACACGTCTGCCACAGCCTTTAATTGCTGGCATGTACCTTATGATGTCTGTTGACACTGTTATCCCA
GCAGGAGAAAAAGTGGTGAATTCTGACATTTCATGCCATTATAAAAATTATCCAATGCATGTCTTTGCCT
ATAGAGTTCACACTCACCATTTAGGTAAGGTAGTAAGTGGATACAGAGTAAGAAATGGACAGTGGACACT
GATTGGACGGCAGAGCCCTCAGCTGCCACAGGCTTTCTACCCTGTGGGGCATCCAGTTGATGTAAGTTTT
GGTGACCTACTGGCTGCAAGATGTGTATTCACTGGTGAAGGAAGGACAGAAGCCACACACATTGGTGGCA
CGTCTAGTGATGAAATGTGCAACTTATACATTATGTATTACATGGAAGCCAAGCATGCAGTTTCTTTCAT
GACCTGTACCCAGAATGTAGCTCCAGATATGTTCAGAACCATACCACCAGAGGCCAACATTCCAATTCCC
GTGAAGTCTGATATGGTTATGATGCATGAACATCATAAAGAAACAGAATATAAAGATAAGATTCCTTTAC
TACAGCAGCCAAAACGAGAAGAAGAAGAAGTGTTAGACCAGGATTTCCACATGGAAGAGGCACTGGATTG
GCCTGGAGTATACTTGTTACCAGGCCAGGTTTCTGGGGTGGCTCTAGACCCTAAGAATAACCTGGTGATT
TTCCACAGAGGTGACCATGTCTGGGATGGAAACTCGTTTGACAGCAAGTTTGTTTACCAGCAAATAGGAC
TCGGACCAATTGAAGAAGACACTATTCTTGTCATAGATCCAAATAATGCTGCAGTACTCCAGTCCAGTGG
AAAAAATCTGTTTTACTTGCCACATGGCTTGAGTATAGATAAAGATGGGAATTATTGGGTCACAGACGTG
GCTCTCCATCAGGTGTTCAAACTGGATCCAAACAATAAAGAAGGCCCTGTATTAATCCTGGGAAGGAGCA
TGCAACCAGGCAGTGACCAGAATCACTTCTGTCAACCCACTGATGTGGCTGTGGATCCAGGCACTGGAGC
CATTTATGTATCAGATGGTTACTGCAACAGCAGGATTGTGCAGTTTTCACCAAGTGGAAAGTTCATCACA
CAGTGGGGAGAAGAGTCTTCAGGGAGCAGTCCTCTGCCAGGCCAGTTCACTGTTCCTCACAGCTTGGCTC
TTGTGCCTCTTTTGGGCCAATTATGTGTGGCAGACCGGGAAAATGGTCGGATCCAGTGTTTTAAAACTGA
CACCAAAGAATTTGTGAGAGAGATTAAGCATTCATCATTTGGAAGAAATGTATTTGCAATTTCATATATA
CCAGGCTTGCTCTTTGCAGTGAATGGGAAGCCTCATTTTGGGGACCAAGAACCTGTACAAGGATTTGTGA
TGAACTTTTCCAATGGGGAAATTATAGACATCTTCAAGCCAGTGCGCAAGCACTTTGATATGCCTCATGA
TATTGTTGCATCTGAAGATGGGACTGTGTACATTGGAGATGCTCATACCAACACCGTGTGGAAGTTCACC
TTGACTGAGAAATTGGAACATCGATCAGTTAAAAAGGCTGGCATTGAGGTCCAGGAAATCAAAGAAGCCG
AGGCAGTTGTTGAAACCAAAATGGAGAACAAACCCACCTCCTCAGAATTGCAGAAGATGCAAGAGAAACA
GAAACTGATCAAAGAGCCAGGCTCGGGAGTGCCTGTTGTTCTCATTACAACCCTTCTGGTTATTCCGGTG
GTTGTCCTGCTGGCCATTGCCATATTTATTCGGTGGAAAAAATCAAGGGCCTTTGGAGATTCTGAACACA
AACTCGAGACGAGTTCAGGAAGAGTACTGGGAAGATTTAGAGGAAAGGGAAGTGGAGGCTTAAACCTTGG
TAATTTCTTTGCAAGCCGTAAGGGCTACAGTCGAAAAGGGTTTGACCGGCTTAGCACTGAGGGCAGTGAC
CAAGAGAAAGAGGATGATGGAAGTGAATCAGAAGAGGAGTATTCAGCACCTCTGCCTGCGCTCGCACCTT
CCTCCTCCTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_138821 unedited
CAGCATTTGTAATACGACTTACTGATAGGGNCGGCCGCGCAATTCGGCACGAGGCAGGTT
CTGAATGATGACTGACGCGGGTTTGGGTGATACCCCTCACAGCCCCTGTCATTCCGGAGT
GATAAGGCACCCGCGCGTCTAGCCCCAGCGCCAGGGCACGCGAGCGGCGCTGGAGGGAGG
AAAGCTTCCGCCTGCGGGCCGGACAAAAGTCCCTCTTTCCCACGGCTTTTTGCCCGCCGC
TCGTGACCGAGACGCCTCGCCGCGGCCAGCTCGCTGCTCTCGCTGGCGGATGGTGTGTGG
CCGCCGCAGGACGCCCGCCGTGCCCGGGCCATGAAGTAGCGGCTGCTGGCGGCGCCGCTG
CCCAACCGCCAGCCCCAGCCCCGCGCTGCGCTGCCCGGTCCTCTCCCGGCGGGGTCGTAT
CGGCGTGGACATGGCTGGCCGCGTCCCTAGCCTGCTAGTTCTCCTTGTTTTTCCAAGCAG
CTGTTTGGCTTTCCGAAGCCCACTTTCTGTCTTTAAGAGGTTTAAAGAAACTACCAGACC
ATTTTCCAATGAATGTCTTGGTACCACCAGACCCGTAGTTCCTATTGATTCATCAGATTT
TGCATTGGATATTCGCATGCCTGGGGTTACACCTAAACAGTCCGATACATACTTCTGCAT
GTCTATGCGAATACCAGTGGATGAGGAAGCCTTCGTGATTGACTTCAAGCCTCGAGCCAG
CATGGATACTGTCCATCACATGTTACTTTTTGGATGCAATATGCCTTCATCCACTGGAAG
TTACTGGTNTTGTGATGAAAGAACCTGTACAGATAAAGCCAATATTCTGTATGCCTGGGC
GANGAATGCTCCCCCTACCCGGCTCCCAAAGTGTTGGATTCANAGTTGAGGAGAGACTGG
AAGTAATACTTNGTACTACAGGTCACTATGGGGAAATAGTGCTTTTAGAGATATACAAGA
CTGTTCTGTGGN

Restriction Sites: NotI-NotI

ACCN: NM_138821

Insert Size: 3500 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:
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_138821.1, NP_620176.1

RefSeq Size: 3636 bp

RefSeq ORF: 2601 bp

Locus ID: 5066

UniProt ID: P19021

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 (3) lacks an alternate in-frame exon in the 5' coding region compared to variant 5. The encoded isoform (c) is shorter than isoform e. This isoform (c) 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.