

Product datasheet for **SC119892**

PC1/3 (PCSK1) (NM_000439) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PC1/3 (PCSK1) (NM_000439) Human Untagged Clone
Tag:	Tag Free
Symbol:	PC1/3
Synonyms:	BMIQ12; NEC1; PC1; PC3; SPC3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119892 sequence for NM_000439 edited (data generated by NextGen Sequencing)

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ATGGAGCGAAGAGCCTGGAGTCTGCAGTGCAGTCTTTTCGTCCTCTTTTGCCTTGGTGT
GCACTGAACAGTGCAAAAGCGAAAAGGCAATTTGTCAATGAATGGGCAGCGGAGATCCCC
GGGGGCCCGGAAGCAGCCTCGGCCATCGCCGAGGAGCTGGGCTATGACCTTTTGGTCTCAG
ATTGGTTCACTTAAAACTACTACTTATTCAAACATAAAAAACCACCCAGAAGGTCTCGA
AGGAGTGCCTTTTATCATCTACTAAGAGATTATCTGATGATGATCGTGTGATATGGGCTGAA
CAACAGTATGAAAAAGAAAGAAGTAAACGTTTTCAGCTCTAAGGGACTCAGCACTAAATCTC
TTCAATGATCCCATGTGGAATCAGCAATGGTACTTGCAAGATAACCAGGATGACGGCAGCC
CTGCCAAGCTGGACCTTTCATGTGATACCTGTTTGGCAAAAAGGCATTACGGGCAAAGGA
GTTGTTATCACCGTACTGGATGATGGTTTGGAGTGAATCACACGGACATTTATGCCAAC
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GATCCCAAAACGAGAACAACACGGGACCAGATGTGCAGGAGAAATTGCCATGCAAGCA
AATAATCACAAATGCGGGGTTGGAGTTGCATACAATTCCAAAGTTGGAGGCATAAGAATG
CTGGATGGCATTGTGACGGATGCTATTGAGGCCAGTTCAATTGGATTCAATCCTGGACAC
GTGGATATTTACAGTGAAGCTGGGGCCCTAATGATGATGGGAAAACGTGGAGGGGCT
GGCCGGCTAGCCCAAGGCTTTTGAATATGGTGTCAAACAGGGGAGACAGGGGAAGGGG
TCCATCTTCGCTGGGCTTCGGGAAACGGGGGGCGTCAGGGAGATAATTGTGACTGTGAT
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ACCTCGGCCTCTGCACCTCTGGCTGCTGGCATCTTCGCTCTGGCCCTGGAAGCAAACCA
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CTTCATGTCACACTTACTTCTGCTGCTGGAAGTACTGCTGCTTGGCTGAAAGAGAA
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GAGAACCCTATAGTACTTGGACTTTGAGAATTACAGACATGTCTGGAAGAAATCAAAT
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ATGAAGCAGCCTCGTGTGTACACGTCCTACAACACTGTTTCAAGATGACAGAAGAGGGGTG
GAGAAGATGGTGGATCCAGGGGAGGAGCAGCCACACAAGAGAACCCTAAGGAGAACC
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GGAGCCCTTCCCAGGCCATGCTGCGACTCCTGCAAAGTGCTTTTCAAGTAAAAACTCACCG
CCAAAGCAATCACAAAGAAGTCCCAAGTCAAAGCTCAACATCCCTTATGAAAATTC
TACGAAGCCCTGGAAAAGCTGAACAAACCTTCCAGCTTAAAGACTCTGAAGACAGTCTG
TATAATGACTATGTTGATGTTTTTATAACACTAAACCTTACAAGCACAGAGACGACCCGG
CTGCTTCAAGCTCTGGTGGACATTCTGAATGAGGAAAATTA
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Clone variation with respect to NM_000439.4

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000439 unedited
 GGGTTCGGATATTTGTATACGACTCCTATAGGGCGGCCGGAATTCGCACGAGGCGAAGC
 GCTTCACTGAGCGCTCGCCGCGCCAGCCTCTCCTCTCGCGCCTCTAGCTCTTCGCAG
 AGCAACCAGGAGCCAGGAGTGGTCCAGAGCCCCAGGGTGGGAAGGGGAGTCTGTCTGGC
 TTTTCTCTATCTTGCTCTTTTTCTCTTCCCTTCCACTCTTGTTCAAGCGAGTGTG
 GAGCTATGGAGCGAAGAGCCTGGAGTCTGCAGTGCAGTCTTTCGTCCTCTTTTGGCCTT
 GGTGTGCACTGAACAGTGCAAAAGCGAAAAGGCAATTTGTCAATGAATGGGCAGCGGAGA
 TCCCCGGGGGCCGGAAGCAGCCTCGGCCATCGCCGAGGAGCTGGGCTATGACCTTTTGG
 GTCAGATTGGTTCACTTGAAAATCACTACTTATCAAACATAAAAAACCACCCAGAAAGGT
 CTCGAAGGAGTGCCTTTCATATCACTAAGAGATTATCTGATGATGATCGTGTGATATGGG
 CTGAACAACAGTATGAAAAAGAAAGAAGTAAACGTTTCAAGGACTCAGCACTAA
 ATCTCTTCAATGATCCCATGTGGAATCAGCAATGGTACTTGAAGATACCAGGATGACGG
 CAGCCCTGCCAAGCTGGACCTTATGTGATACCTGTTTGGCAAAAAGGCATTACGGGCA
 AAGGAGTTGTTATCACCGTACTGGATGATGGTTTGGAGTGAATCACACGGACATTTATG
 CCAACTATGATCCAGAGGCTAGCTATNGATTTAATGGATATGACCATGATCCATTTCCCC
 GATATGATCCCAAAACGAGAACANACACGGGACCAAGATGTGCAGGNAGAATGCCATGN
 NCAGCAATAATCACAATGCG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000439 unedited
 NTTAGCTATGGCCCGCGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTCTGGG
 AAAGTGGTATATATCATTCTCCCAACATTTATTTTGTGGCTGAGAAAGGAGACAGGTAT
 AGAAAACCTTTCAGAAGGAGAAACAGAGGAAAGACCAGGCATGCAGCACGAGTCATAACCA
 CCTCTGGATCCACGGACGCCTCTGGCACACAGACACAGTGCACCAGGCAAGAATGTTT
 GAAAATTGCTCAAACCAGAGCATTTCAGATTTCAAGATCTGTTTCTAGATCTAAATAATCC
 AGCTTTTGACCAACATGACCAGATTTTACTACAGGAATGAGTGGCACTTTGGAATAGAA
 AGATCTAGGGAATGAGTCTTACAGTGAACCTCATTAGGCCTACCAAACTACTTTCTTG
 GCATCAAATTTGAAGAACCACATGGACAAGACAGGGAACAAGCTACAGAAACAGTTTCT
 GACTCCTTCTCATTCTTTGCAGATTATGTTTTCAAATTAATTGATATCCCAGTTTTTGGC
 TTTTCTTTTGAAGAATTGAAATGGGCTCTAATGCAGTGTCTAATGTAGTGAAGAGCTTT
 TTGTCAACTGTGACTCCAGAAAGAACAAAACACTTCACTTGTGCAGACAGGAAAGATGTG
 TTTTGAATACCTATGATCAATTCTGGAAGTTGAACTTCTGCTTGGAGCTCATCCCTTC
 ACATGTACAGTTTAGGGAGAAAAAGAAAAGGTGCCACAAAGGATATTATAAGCATAAGAA
 TTCATGACANNAACACCCTTTCAGACACAGGCAANATCGCAGGGTAAGGAAGAGCATGAA
 TATTTCCACTTGGGACCCACACTTATTTTAATTTNCTCATTTCAGAATGTCACCAGAGCTT
 GAGCAGNCGTCGTCCTTGTGTTAAGGTTTAA

Restriction Sites:

NotI-NotI

ACCN:

NM_000439

Insert Size:

3570 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](#)

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_000439.3](#), [NP_000430.3](#)

RefSeq Size: 5054 bp

RefSeq ORF: 2262 bp

Locus ID: 5122

UniProt ID: [P29120](#)

Cytogenetics: 5q15

Domains: Peptidase_S8, P

Protein Families: Druggable Genome, Protease, Secreted Protein

Gene Summary:

This gene encodes a member of the subtilisin-like proprotein convertase family, which includes proteases that process protein and peptide precursors trafficking through regulated or constitutive branches of the secretory pathway. The encoded protein undergoes an initial autocatalytic processing event in the ER to generate a heterodimer which exits the ER and sorts to subcellular compartments where a second autocatalytic event takes place and the catalytic activity is acquired. The protease is packaged into and activated in dense core secretory granules and expressed in the neuroendocrine system and brain. This gene encodes one of the seven basic amino acid-specific members which cleave their substrates at single or paired basic residues. It functions in the proteolytic activation of polypeptide hormones and neuropeptides precursors. Mutations in this gene have been associated with susceptibility to obesity and proprotein convertase 1/3 deficiency. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene [provided by RefSeq, Jan 2014]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest protein (isoform 1). 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.