

Product datasheet for **SC118531**

Proprotein Convertase 2 (PCSK2) (NM_002594) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Proprotein Convertase 2 (PCSK2) (NM_002594) Human Untagged Clone
Tag:	Tag Free
Symbol:	Proprotein Convertase 2
Synonyms:	NEC-2; NEC 2; NEC2; PC2; SPC2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC118531 sequence for NM_002594 edited (data generated by NextGen Sequencing)

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ATGAAGGGTGGTTGTGTCTCCAGTGGAAAGGCGGCCCGGGTTCCTCTTCTGTGTGTCATG
GTTTTTGCATCTGCTGAGCGACCGGTCTTCACGAATCATTTTTCTGTGGAGTTGCATAAA
GGGGGAGAGGACAAAGCTCGCCAAGTTGCAGCAGAACACGGCTTTGGAGTCCGAAAGCTT
CCCTTTGCTGAAGTCTGTACCACTTTATCACAATGGCCTTGCAAAGGCCAAGAGAAGA
CGCAGCCTACACCACAAGCAGCAGCTGGAGAGAGACCCAGGGTAAAGATGGCTTTGCAG
CAGGAAGGATTTGACCGAAAAAGCGAGGTTACAGAGACATCAATGAGATCGACATCAAC
ATGAACGATCCTCTTTTTACAAAGCAGTGGTATCTGATCAATACTGGGCAAGCTGATGGC
ACTCCTGGCCTTGATTTGAATGTGGCTGAAGCCTGGGAGCTGGGATACACAGGAAAAGGT
GTTACCATTGGAATTATGGATGATGGGATTGACTATCTCCACCCGGACCTGGCCTCCAAC
TATAATGCCGAAGCAAGTTACGACTTCAGCAGCAACGACCCCTATCCTTACCCTCGGTAC
ACAGATGACTGGTTTAAACAGCCACGGACCCGATGTGCAGGAGAAGTTTCTGCTGCCGCC
AACAAATATCTGTGGAGTTGGAGTAGCATACTCAAGGTTGCAGGCATCCGGATG
CTGGACCAGCCATTCATGACAGACATCATCGAGGCTCCTCCATCAGTCATATGCCACAG
CTGATTGACATCTACAGCGCCAGCTGGGGCCCCACAGACAACGGCAAGACAGTGGATGGG
CCCCGGGAGCTCACGCTGCAGGCCATGGCCGATGGCGTGAACAAGGGCCCGCGGCCAAA
GGCAGCATCTACGTGTGGCCTCCGGGGACGGCGGCAGCTATGACGACTGCAACTGCGAC
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GCCCTGTACGACGAGAGCTGCTCTTCCACCTTGGCTTCCACCTTCCAGCAACGGGAGGAAA
AGGAACCCCGAGGCCGGTGTGGCAACCACAGATTTGTACGGCAACTGCACTCTGAGGCAT
TCTGGGACATCTGCAGCTGCCCCGAGGCAGCTGGTGTGTTTGCAGTGGCTCTGGAGGCT
AACCTGGGTCTGACCTGGCGGGACATGCAGCATCTGACTGTGCTCACCTCCAAACGGAAAC
CAGCTTACGACGAGGTCCATCAGTGGCGGCGCAATGGGGTCGGCCTGGAATTTAATCAC
CTCTTTGGCTACGGGTCTTGTATGCAGGTGCCATGGTGAATAAGGCTAAAGACTGGAAA
ACCGTGCCTGAGAGATTCACCTGTGTGGGAGGCTCCGTGCAGGACCCTGAGAAAAATCCA
TCCACTGGCAAGTTGGTGTGCACTCACAACCGACGCCTGTGAGGGGAAGGAAAATTTT
GTCCGCTACCTGGAGCATGTCCAGGCTGTATCACGGTCAACGCAACCAGAAGAGGAGAC
CTGAACATCAACATGACTTCCCCTATGGGCACCAAGTCCATTTTGTGAGCCGGCGTCCA
AGGGATGACGACTCCAAGGTGGGCTTTGACAAGTGGCCTTTCATGACCACTCACACGTGG
GGGAAGACGCCCGAGGCACCTGGACCTGGAGCTGGGATTTGTGGCAGCGCCCGCAG
AAGGGGGTGTGAAGGAGTGGACCCTGATGCTGCATGGCACTCAGAGTGCCCGTACATC
GACCAGGTGGTGCGGGATTACCAGTCCAAGTTGGCCATGTCCAAGAAAGAGGAGCTGGAG
GAAGAGCTGGACGAAGCCGTGGAGAGAAGCCTGAAAAGCATCCTTAACAAGAAGTAAAG
    
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Clone variation with respect to NM_002594.3

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_002594 unedited GGAATTTGTAATACGACTCACTATAGGGGCGGCCGCAATTCGCACGAGGCAGCTCCCCA CATTGCGACCCCTGCCCGCGCCGGCCGCCTGACTGCACGGCTTCCCCTCCAGCCAGA TGCTGGAGAACACATACTGATTCCGCTGCTTCCAAGACCTGTTCACTCTCTTTCTAT ACAAAGATTTTTTAAAACTATATAAGAATCTTTATTTGCACCCTCCCTCCGAGTC CCCTGCTCCGCCAGCCTGCGCGCCTCCTAGCACCACTTTTCACTCCCAAAGAAGGATGAA GGGTGGTTGTGTCTCCAGTGAAGGCGGCCCGGGTTCCTCTTGTGTGCATGGTTTT TGCATCTGCTGAGCGACCGGTCTTACGAATCATTTTCTTGTGGAGTTGCATAAAGGGG AGAGGACAAAGCTCGCCAAGTTGCAGCAGAACACGGCTTTGGAGTCCGAAAGCTTCCCTT TGCTGAAGGTCTGTACCACTTTTATCACAATGGCCTTGCAAAGGCCAAGAGAAGACGCAG CCTACACCACAAGCAGCAGCTGGAGAGAGACCCAGGGTAAAGATGGCTTTGCAGCAGGA AGGATTTGACGAAAAAGCGAGGTTACAGAGACATCAATGGAGATCGACATCAACATNG AACGANTCCTCTTTTACAANAGCAGTGGGGTATCTGATNCAATACTGGGCAAGCTGAT GGGCACTCCCTGGCCCTTGATTTTGAATGGTGGGCTGAAAGCCTGGNGAGCTGNGATACC AGGNAAAAGGGTNTACCATTGGAATNATGGGATGAAGGGGAATGACTATTCTCCACC CCGGACCCTGGCCTTCAACTATATGGCGAAGGCAAGTTACGACTTCAGAGNNAACGACCC CTATTCTTACCCTCGTCACAGAAAGG</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_002594 unedited CGCGGCACGCAATCTAGTATCGAGTTTTTTTTTTTTTTTTTTTTTTTGGTGGGAACGCTATATT GGGGCATAGAGTAAAAAGATTGTTCCATTGTAATGAAAATAATCATTGACAGTGAGTG AAGCTTCAGATTAAGAAGACGGAATTGCCTGTACGGGTGATGGAATTGCTAGGTGCCTGC CTGAAACGTGGAGCGAGGACAGAGGCGGAGCTGGGGAGGGAGGGCGGTGGAAAGGCGGA TGTGCAGCGCTAGTTCTTGTAAAGATGCTTTTCAAGCTTCTCTCCACGGCTTCGTCCAG CTCTTCTCCAGCTCCTCTTTTGGACATGGCCAACCTGGACTGGTAATCCCGCACCAC CTGGTCGATGTACGGGGCACTCTGAGTGCCATGCAGCATCAGGGTCCACTCCTTCAGCAC CCCCTTCTGCGGGGCGTCCGACAAAATCCAGCTCCAGGGTCCAGGTGCCTCGGGCGTC TTCCCCCACGTGTGAGTGGTCATGAAAGGCCACTTGTCAAAGCCCACCTGGAGTCGT ATCCCTTGGACGCCGGCTCATCAAAATGGACTTGGTGGCCATAGGGGAAGTCATGTTGAT GTTCAAGTCTCCTCTTCTGGTTGCGTTGACCGTGATGACAGCCTGGACATGCTCCAGTA GCGGACAAAATTTCTTCCCCTCACAGCGTCNGTTGTGAGTGTGAGCACAACCTTGGC AGTGGATGGTATTTTCTCAAGGTCTGCACGGAGCCTCCCCACAGTGGAATCTCTCATGC ACGTTTTCCAGTCTTTAGCATTTTACATGGCACCTGCTCAAGGACCCGTACCAAAGAGT GATTAATTTAGGCGACCCCATGGCCGCCCTGATGACCTCGTGGAAACTGGTCCGTTGN AGTAAGCACATAGAGCTGATGTCCGAGTCAAACCAGT</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_002594
Insert Size:	2460 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_002594.2](#), [NP_002585.2](#)

RefSeq Size: 4745 bp

RefSeq ORF: 1917 bp

Locus ID: 5126

UniProt ID: [P16519](#)

Cytogenetics: 20p12.1

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 protein undergoes an initial autocatalytic processing event and interacts with a neuroendocrine secretory protein in the ER, exits the ER and sorts to secretory granules, where it is cleaved and catalytically activated during intracellular transport. The encoded 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. Single nucleotide polymorphisms in this gene may increase susceptibility to myocardial infarction and type 2 diabetes. This gene may also play a role in tumor development and progression. 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 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.