

## Product datasheet for **RC218596**

### Proprotein convertase PC4 (PCSK4) (NM\_017573) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Proprotein convertase PC4 (PCSK4) (NM_017573) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Proprotein convertase PC4
Synonyms:	PC4; SPC5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC218596 representing NM\_017573  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCGGCCCGCCCGATTGCGCTGTGGCTGCGCCTGGTCTTGGCCCTGGCCCTTGTCCGCCCCCGGGCTG  
TGGGGTGGGCCCCCGTCCGAGCCCCATCTATGTCAGCAGCTGGGCCGTCCAGGTGTCCAGGGTAACCG  
GGAGGTCGAGCGCCTGGCAGCAAAATTCGGCTTCGTCAACCTGGGGCCGATCTTCCCTGACGGGCAGTAC  
TTTCACCTGCGGCACCGGGCGTGGTCCAGCAGTCCCTGACCCCGCACTGGGGCCACCGCTGCACCTGA  
AGAAAAACCCCAAGTGCAGTGGTTCAGCAGCAGACGCTGCAGCGGGGGTAAACGCTCTGTCGTGGT  
GCCACGACCCCTGGTCTCCAAGCAGTGGTACATGAACAGCGAGGCCCAACCAGACCTGAGCATCCTG  
CAGGCCTGGAGTCAGGGGCTGTAGGCCAGGCATCGTGGTCTCTGTGCTGGACGATGGCATCGAGAAGG  
ACCACCCGGACCTCTGGGCCAACTACGACCCCTGGCCAGCTATGACTTCAATGACTACGACCCGGACCC  
CCAGCCCGCTACACCCAGCAAGAGAACCAGCAGCGGACCCGCTGTGCTGGGGAGGTGGCCCGGATG  
GCCAACAAATGGTCTCTGTGGTGTGGGGTTCGCTTCAACGCCGAATCGGAGGCGTACGGATGCTGGACG  
GTACCATCACCGATGTCATCGAGGCCAGTCGCTGAGCCTGCAGCCGACGACATCCACATTTACAGCGC  
CAGCTGGGGTCCCGAGGACGACGGCCGACGGTGGACGGCCCGGCATCCTCACCCGCGAGGCCCTCCGG  
CGTGGTGTGACCAAGGGCCGCGGGCTGGGCACGCTTTCATCTGGGCCTCGGGCAACGGCGGCTGC  
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GCAGGGCCCGGTGCCCTGGTACAGCGAAGCCTGCGCCTCACCCCTCACACCACCTACAGCAGCGGGCTG  
GCCACCGACCCCGATCGTACCACGGACCTGCATCACGGGTGCACAGACCAGCACAGGGCACCTCGG  
CCTCAGCCCACTGGCGGCCGATGATCGCCCTAGCGCTGGAGGCCAACCCGTTCTGACGTGGAGAGA  
CATGACGACACTGGTGGTCCGCGCTCCAAGCCGGCGCACCTGCAGGCCGAGGACTGGAGGACCAACGGC  
GTGGGGCCCAAGTGAGCCATCACTACGGATACGGGCTGTGGACGCGGGCTGTGGTGGACACCGCCC  
GCACCTGGCTGCCACCCAGCCGAGAGGAAGTGCGCCGTCCGGGTCCAGAGCCGCCACCCCATCCT  
GCCGCTGATCTACATCAGGGAAAACGTATCGGCCGTGCGCCGGCCTCCACAACCTCCATCCGCTCGTGGAG  
CACGTGCAGGGCAGCTGACGCTGTCTACAGCCGGCGGAGACCTGGAGATCTCGTCCAGCCCCA  
TGGGCACGCGCTCCACACTCGTGGCCATACGACCCTGGACGTCAGCACTGAAGGCTACAACAACCTGGT  
CTTCATGTCCACCACTTCTGGGATGAGAACCCACAGGGCGTGTGGACCCTGGGCCTAGAGAACAAGGGC  
TACTATTTCAACACGGGGACGTTGTACCGCTACAGCTGTGCTCTATGGGACGGCCGAGGACATGACAG  
CGCGGCTACAGGCCCCAGGTACAGCAGCGGTGTGTGCAGCGGGACACAGAGGGGCTGTGCCAGGC  
GTGTGACGGCCCCGCTACATCCTGGGACAGCTCTGCCTGGCCTACTGCCCCCGCGGTTCTTAAACCAC  
ACAAGGCTGGTGACCGCTGGGCCTGGGCACACGGCGGCGCCCGCTGAGGGTCTGCTCCAGCTGCCATG  
CCTCCTGTACACCTGCCGCGGGCTCCCCGAGGGACTGCACCTCCTGTCCCCATCCTCCACGCTGGA  
CCAGCAGCAGGGCTCCTGCATGGGACCCACCCCGACAGCCGCCCGGGCTTAGAGCTGCCGCTGT  
CCCCACCACCGCTGCCAGCCTCGGCCATGGTGTGAGCCTCTGGCCGTGACCTCGGAGGCCCGCTCC  
TCTGCGGCATGTCCATGGACCTCCACTATACGCTGGCTCTCCCGTCCAGGGCCACCCCAACAAACC  
CCAGGTCTGGCTGCCAGCTGGAACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA

Protein Sequence: >RC218596 representing NM\_017573  
 Red=Cloning site Green=Tags(s)

MRPAPIALWLRLVLALALVRPRAVGWAPVRAPIYVSSWAVQVSQGNREVERLARKFGFVNLGPIFPDGQY  
 FHLRHRGVVQQSLTPHWGHRHLKKNPKVQWFQQQLQRRVKRSVVVPTDPWFSKQWYMNSEAQPDL  
 QAWSQGLSGQGI VVSVLDDGIEKDHPDLWANYDPLASYDFNDYDPPQPRYPYTPSKENRHGTRCAGEVAAM  
 ANNGFCGVGVAFNARIGGVRMLDGTITDVIEAQSLSLQPHIHIYASASWGPEDDGRTVDGPGILTREA  
 RGVTKGRGGLGTLFIWASGNGLHYDNCNDGYTNSIHTLSVGSSTTQQGRVPWYSEACASTLTTTYSSGV  
 ATDPQIVTTDLHHGCTDQHTGTSASAPLAAGMIALALEANPFLTWRDMQHLVVRASKPAHLQAEDWRTNG  
 VGRQVSHHYGYGLLDAGLLVDTARTWLPTQPQRKCAVRVQSRPTPILPLIYIRENVSACAGLHNSIRSLE  
 HVQAQLTLYSRRGDLEISLTPMGRSTLVAIRPLDVSTEGYNNWVFMSTHFWDENPQGVWTLGLENKG  
 YYFNTGTLRYRTLLLYGTAEDMTARPTGPQVTSSACVQRDTEGLCQACDGPAYILGQLCLAYCPPRFNH  
 TRLVTAGPGHTAAPALRVCSSCHASCYTCRGGSPRDCSTCPPSSTLDQQQSGCMGPTTTPDRPRLAAAC  
 PHHRCPASAMVLSLLAVTLGGPVLCGMSMDLPLYAWLSRARATPTKPQVWLPAGT

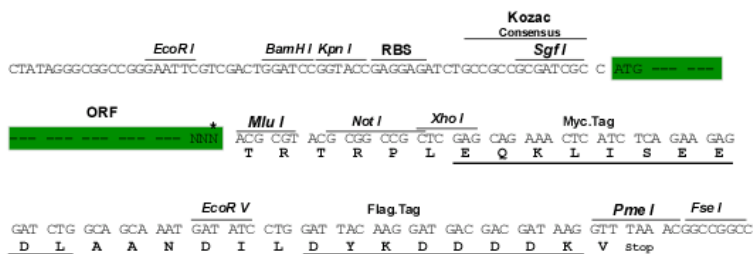
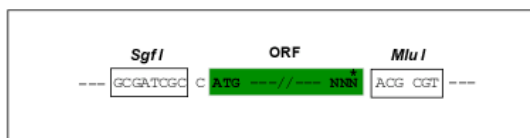
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mg3908\\_d09.zip](https://cdn.origene.com/chromatograms/mg3908_d09.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\_017573

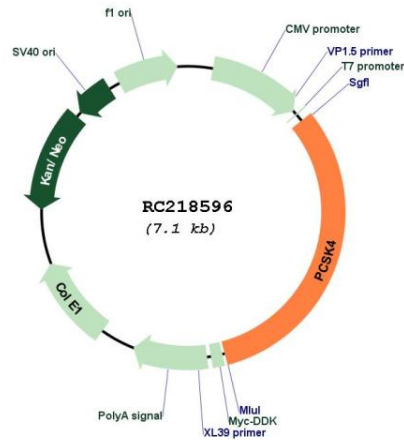
ORF Size: 2265 bp

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](#)

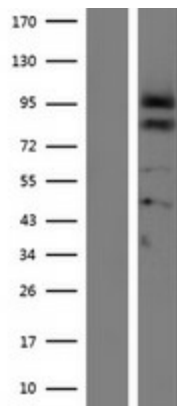
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_017573.4, NP_060043.2</u>
<b>RefSeq Size:</b>	2674 bp
<b>RefSeq ORF:</b>	2268 bp
<b>Locus ID:</b>	54760
<b>UniProt ID:</b>	<u>Q6UW60</u>
<b>Cytogenetics:</b>	19p13.3
<b>Protein Families:</b>	Druggable Genome, Protease
<b>MW:</b>	82.6 kDa
<b>Gene Summary:</b>	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 even takes place and the catalytic activity is acquired. This gene encodes one of the seven basic amino acid-specific members which cleave their substrates at single or paired basic residues. The protease is expressed only in the testis, placenta, and ovary. It plays a critical role in fertilization, fetoplacental growth, and embryonic development and processes multiple prohormones including pro-pituitary adenylate cyclase-activating protein and pro-insulin-like growth factor II. [provided by RefSeq, Jan 2014]

Product images:



Circular map for RC218596



Western blot validation of overexpression lysate (Cat# [LY413713]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218596 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).