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Product datasheet for RC221711

PC1/3 (PCSK1) (NM_000439) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	PC1/3
Synonyms:	BMIQ12; NEC1; PC1; PC3; SPC3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC221711 representing NM_000439
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGCGAAGAGCCTGGAGTCTGCAGTGCACTGCTTTCGTCCTCTTTTGCGCTTGGTGTGCACTGAACA
GTGCAAAAGCGAAAAGGCAATTTGTCAATGAATGGGCAGCGGAGATCCCCGGGGGCCCGGAAGCAGCCTC
GGCCATCGCCGAGGAGCTGGGCTATGACCTTTTGGGTCAGATTGGTTCACTTGAAAATCACTACTTATTC
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ATCGTGTGATATGGGCTGAACAACAGTATGAAAAAGAAAGAAGTAAACGTTCAGCTCTAAGGGACTCAGC
ACTAAATCTCTTCAATGATCCCATGTGGAATCAGCAATGGTACTTGCAAGATACCAGGATGACGGCAGCC
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CCGTACTGGATGATGGTTTGGAGTGGAATCACACGGACATTTATGCCAACTATGATCCAGAGGCTAGCTA
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AGATGTGCAGGAGAAATTGCCATGCAAGCAAATAATCACAAATGCGGGGTTGGAGTTGCATACAATTCCA
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TCCTGGACACGTGGATATTTACAGTGCAAGCTGGGGCCCTAATGATGATGGGAAAACTGTGGAGGGGCCT
GGCCGGCTAGCCCAGAAGGCTTTTGAATATGGTGTCAAACAGGGGAGACAGGGGAAGGGGTCCATCTTCG
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CACCATCTCCATCAGCAGTGCCTCCCAGCAAGGCCTATCCCCCTGGTACGCTGAGAAGTGCTCCTCCACA
CTGGCCACCTCTTACAGCAGCGGAGATTACACCGACCAGAGAATCACGAGCGCTGACCTGCACAATGACT
GCACGGAGACGCACACAGGCACCTCGGCCTCTGCACCTCTGGCTGCTGGCATCTTCGCTCTGGCCCTGGA
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GCCAATAACCCTGGATGGAAAAAGAATGGAGCAGGCTTGATGGTGAATAGTCGATTTGGATTTGGCTTGC
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TGAAAGAGAACGGGATACATCTCCTAATGGCTTTAAGAATTGGGACTTCATGTCTGTTCACACATGGGGA
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CACGTCCTACAACACTGTTCAGAATGACAGAAGAGGGGTGGAGAAGATGGTGGATCCAGGGGAGGAGCAG
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ATGTTGATGTTTTTTATAACACTAAACCTTACAAGCACAGAGACGACCGGCTGCTTCAAGCTCTGGTGGA
CATTCTGAATGAGGAAAAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221711 representing NM_000439
Red=Cloning site Green=Tags(s)

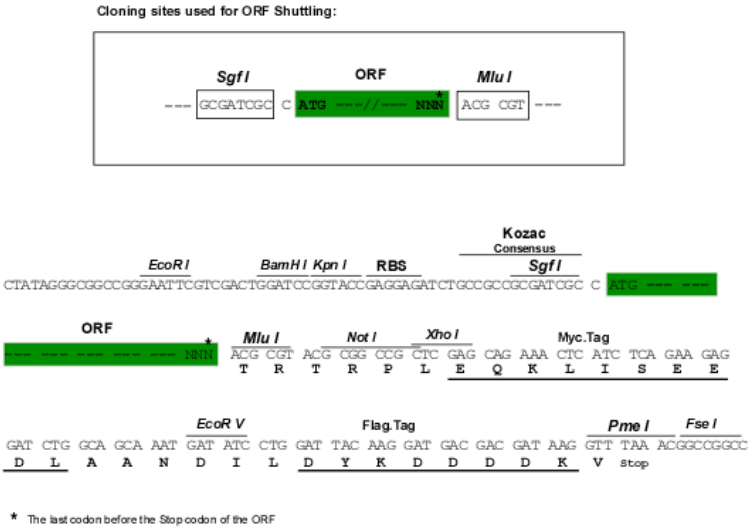
MERRAWSLQCTAFVLFCAWCALNSAKAKRQFVNEWAAEIPGGPEAASAIAEELGYDLLGQIGSLENHYLF
KHKNHPRRSRRSAFHITKRLSDDDRVIWAEQQYEKERSKRSALRDSALNLFNDPMWNQQWYLQDTRMTAA
LPKLDLHVIPVWQKGITGKGVVITVLDDGLEWNHTDIYANYDPEASYDFNDNDHDPFPRYDPTNENKHGT
RCAGEIAMQANNHKCGVGVAYNSKVGGIRMLDGIVTDAIEASSIGFNPGHVDIYSASWGPNDDGKTVEGP
GRLAQKAFEYGVKQGRQGKGSIFVWASGNGGRQGDNCDCDGYTDSIYTISISSASQQGLSPWYAEKCSST
LATSYSSGDYTDQRITSADLHNDCTETHTGTSASAPLAAGIFALALEANPNLTWRDMQHLVVWTSEYDPL
ANNPGWKKNGAGLMVNSRFGFGLLNAKALVDLADPRTWRSVPEKKECVVKDNDFEPRALKANGEVIIEIP
TRACEGQENAIKSLEHVQFEATIEYSRRGDLHVTLTSAAGTSTVLLAERERDTSPNGFKNWDFMSVHTWG
ENPIGTWTLRITDMSGRIQNEGRIVNWKLILHGTSSQPEHMKQPRVYTSYNTVQNDRRGVEKMVDPGEEQ
PTQENPKENTLVSKSPSSSSVGGRRDELEEGAPSQAMLRLLQSAFSKNSPPKQSPKKSPSAKLNIPYENF
YEALEKLNKPSQLKDSEDSLYNDYVDVFYNTKPYKHRDDRLLQALVDILNEEN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6205_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



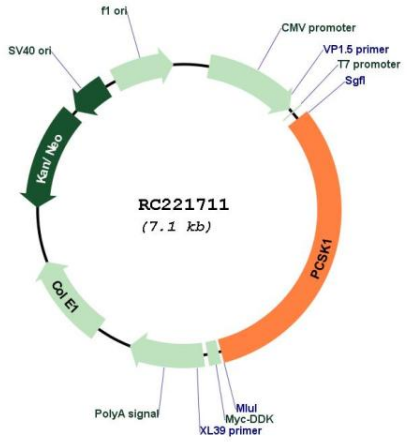
ACCN: NM_000439

ORF Size: 2259 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
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000439.5
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
MW:	84.15 kDa

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 even 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]

Product images:



Circular map for RC221711

Western validation with an anti-DDK antibody
* L: Control HEK293 lysate R: Over-expression lysate