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Product datasheet for RG230090

PC1/3 (PCSK1) (NM_001177876) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PC1/3 (PCSK1) (NM_001177876) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PCSK1
Synonyms:	BMIQ12; NEC1; PC1; PC3; SPC3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG230090 representing NM_001177876
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTGGATGGCATTGTGACGGATGCTATTGAGGCCAGTTCAATTGGATTCAATCCTGGACACGTGGATA
TTTACAGTGCAAGCTGGGGCCCTAATGATGATGGGAAAACTGTGGAGGGGCCTGGCCGGCTAGCCCAGAA
GGCTTTTGAATATGGTGTCAAACAGACGAGCGCTGACCTGCACAATGACTGCACGGAGACGCACACAGGC
ACCTCGGCCTCTGCACCTCTGGCTGCTGGCATCTTCGCTCTGGCCCTGGAAGCAAACCCAAATCTCACCT
GGCGAGATATGCAGCACCTGGTTGTCTGGACCTCTGAGTATGACCCGCTGGCCAATAACCCTGGATGGAA
AAAGAATGGAGCAGGCTTGATGGTGAATAGTCGATTTGGATTTGGCTTGCTAAATGCCAAAGCTCTGGTG
GATTTAGCTGACCCCAGGACCTGGAGGAGCGTGCCTGAGAAGAAAGAGTGTGTTGTAAAGGACAATGACT
TTGAGCCCAGAGCCCTGAAAGCTAATGGAGAAGTTATCATTGAAATTCCAACAAGAGCTTGTGAAGGACA
AGAAAATGCTATCAAGTCCCTGGAGCATGTACAATTTGAAGCAACAATTGAATATTCCCGAAGAGGAGAC
CTTCATGTCACACTTACTTCTGCTGCTGGAACTAGCACTGTGCTCTTGGCTGAAAGAGAACGGGATACAT
CTCCTAATGGCTTTAAGAATTGGGACTTCATGTCTGTTCACACATGGGGAGAGAACCCTATAGGTACTTG
GACTTTGAGAATTACAGACATGTCTGGAAGAATTCAAAATGAAGGAAGAATTGTGAACTGGAAGCTGATT
TTGCACGGGACCTCTTCTCAGCCAGAGCATATGAAGCAGCCTCGTGTGTACACGTCCTACAACACTGTTC
AGAATGACAGAAGAGGGGTGGAGAAGATGGTGGATCCAGGGGAGGAGCAGCCCACACAAGAGAACCCTAA
GGAGAACACCCTGGTGTCCAAAAGCCCCAGCAGCAGCAGCGTAGGGGGCCGGAGGGATGAGTTGGAGGAG
GGAGCCCCTTCCCAGGCCATGCTGCGACTCCTGCAAAGTGCTTTCAGTAAAAACTCACCGCCAAAGCAAT
CACCAAAGAAGTCCCCAAGTGCAAAGCTCAACATCCCTTATGAAAACTTCTACGAAGCCCTGGAAAAGCT
GAACAAACCTTCCCAGCTTAAAGACTCTGAAGACAGTCTGTATAATGACTATGTTGATGTTTTTTATAAC
ACTAAACCTTACAAGCACAGAGACGACCGGCTGCTTCAAGCTCTGGTGGACATTCTGAATGAGGAAAAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

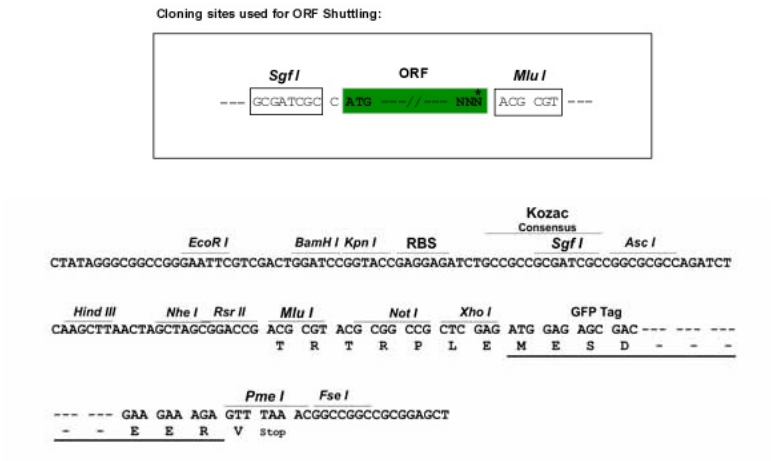
>RG230090 representing NM_001177876
Red=Cloning site Green=Tags(s)

MLDGIVTDAIEASSIGFNPGHVDIYSASWGPNDDGKTVEGPGRLAQKAFEYGVKQTSADLHNDCTETHTG
TSASAPLAAGIFALALEANPNLTWRDMQHLVVWTSEYDPLANNPGWKKNGAGLMVNSRFGFGLLNAKALV
DLADPRTWRSVPEKKECVVKDNDFEPRALKANGEVIIEIPTRACEGQENAIKSLEHVQFEATIEYSRRGD
LHVTLTSAAGTSTVLLAERERDTSPNGFKNWDFMSVHTWGENPIGTWTLRITDMSGRIQNEGRIVNWKLI
LHGTSSQPEHMKQPRVYTSYNTVQNDRRGVEKMVDPGEEQPTQENPKENTLVSKSPSSSSVGGRRDELEE
GAPSQAMLRLLQSAFSKNSPPKQSPKKSPSAKLNIPYENFYEALEKLNKPSQLKDSEDSLYNDYVDVFYN
TKPYKHRDDRLLQALVDILNEEN

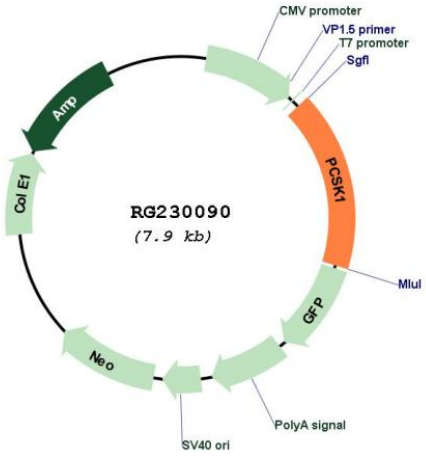
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001177876

ORF Size:	1329 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.
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_001177876.1, NP_001171347.1
RefSeq Size:	4070 bp
RefSeq ORF:	1331 bp
Locus ID:	5122
Cytogenetics:	5q15
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 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]