

## Product datasheet for **RG231494**

### PC6 (PCSK5) (NM\_001190482) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PC6 (PCSK5) (NM_001190482) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PCSK5
Synonyms:	PC5; PC6; PC6A; SPC6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG231494 representing NM_001190482 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG231494 representing NM\_001190482  
 Red=Cloning site Green=Tags(s)

MGWGRCCCPGRLLDLCVLLALLGGCLLPVCRTRVYTNHWAVKIAGGFPEANRIASKYGFINIGIGALKD  
 YYHFYHSRTIKRSVSISSRGTHSFISMEPKVEWIIQQQVVKRTRKRDYDFSRAQSTYFNDPKWPSMWMHCS  
 DNTHPCQSDMNIEGAWKRGYTGKNI VVTILDDGIERTHPDLMQNYDALASCDVNGNDLDPMPRYDASNEN  
 KHGTRCAGEVAAAANNSHCTVGI AFNAKIGGVRMLDGDVTDMEAKSVSFNPQHVHIYSASWGPDDDGKT  
 VDGPAPL TRQAFENGVRMGRRLGSVFWASGNGGRSKDHCSGDYNSIYTISSISSTAESGKPKWYLEE  
 CSSTLATTYSSGESYDKIITDRLRQCTDNHTGTSASAPMAAGIALALEANPFLTWRDVQHVIVRTSR  
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 GERAAGDWVLEVDTPSQLRNFKTPGKLEWVLYGTSVQPYSPNEFPKVERFRYSRVEDPTDDYGT  
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 CLEEC PAGTYEKETKECRDCHKSLTCSSSGTCTTCQKGLIMNPRGSCMANEKCSPEYWEDAPGCKP  
 CHVKCFHCMGPAEDQCQTCPMNSLLLNTTCVKDCPEGYADEDSNRCAHCHSSCRTCEGRHSRQCHSCR  
 P GWFQLGKECLLQCREGYADNSTGRCERCNRCKGCQGPRTDCLSCDRFFLLRSKGECHRSCPDHYV  
 EQSTQTCERCHPTCDQCKGKALNCLSCVWSYHLMGGICTSDCLVGEYRVGEKEFNCKECHESCKEKG  
 PGAKNCTLCPANLVLMDDSHLHCCNTSDPPSAQECDCQDTTDECILRTSKVRPATEHFKTALFITSS  
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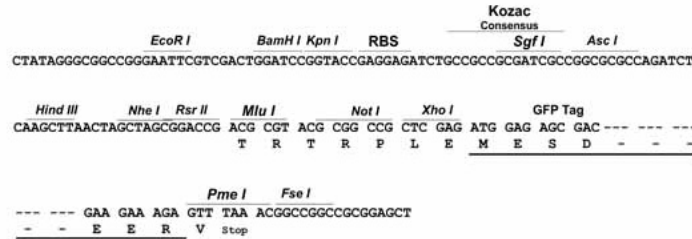
TRTRPLE - GFP Tag - V

**Restriction Sites:**

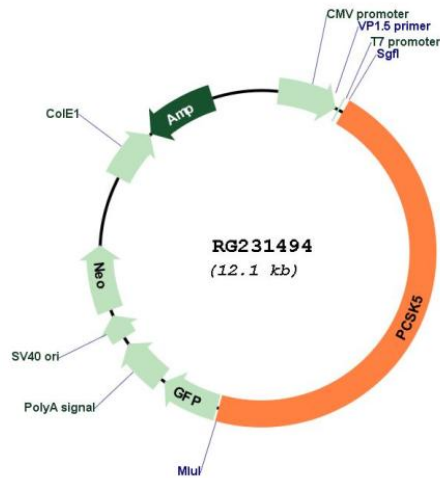
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_001190482

ORF Size: 5580 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](mailto: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.

**RefSeq:** [NM\\_001190482.1](#), [NP\\_001177411.1](#)

**RefSeq Size:** 9538 bp

**RefSeq ORF:** 5583 bp

**Locus ID:** 5125

**UniProt ID:** [Q92824](#)

**Cytogenetics:** 9q21.13

**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. It then sorts to the trans-Golgi network where a second autocatalytic event takes place and the catalytic activity is acquired. This encoded protein is widely expressed and one of the seven basic amino acid-specific members which cleave their substrates at single or paired basic residues. It mediates posttranslational endoproteolytic processing for several integrin alpha subunits and is thought to process prorenin, pro-membrane type-1 matrix metalloproteinase and HIV-1 glycoprotein gp160. Alternative splicing results in multiple transcript variants, some of which encode distinct isoforms, including a protease packaged into dense core granules (PC5A) and a type 1 membrane bound protease (PC5B). [provided by RefSeq, May 2014]