

Product datasheet for **RG214067**

PACE4 (PCSK6) (NM_138323) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PACE4 (PCSK6) (NM_138323) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PCSK6
Synonyms:	PACE4; SPC4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG214067 ORF sequence, **codon optimized**.
 Due to the complexity of NM_138323, the ORF clone is codon optimized for mammalian Expression.
 The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGCATCGCC**

ATGCCACCTCGGGCTCCCCCTGCACCAGGCCCCCGACCACCACCCCGAGCTGCTGCTGCAACTGACACCGCCGCCGGTGCCGAGGTGCCGGCGGAGCAGGAGGTGCTGGAGGACCAGGGTTCAGGCCTCTTGCCCCCGCCCTTGCGCATGGTTGCTGTGCTGCCTGCCTGCCCGTGTTACAGCGCCGCTCCAAGGCCAGTTTACAGAACATTGGGCAGTGCAGGTACTGGCGGACCTGCAGAGGCAGATCGCGTTGCCGCTGCCACGGGTACCTCAATCTGGGCAGATTGGCAACCTCGAGGACTACTACCCTTCTACCACAGCAAAACGTTCAAACGAGCACACTGTCTAGCAGAGGACCCATACGTTTCTGAGAATGGATCCACAAGTAAAATGGCTGCAGCAGCAAGAGGTGAAGCGCAGAGTCAAAGACAGGTGAGAAGCGACCCTCAGGCTCTGTATTTCAACGACCCTATTTGGAGCAACATGTGGTATCTTCATTGCGGGGATAAGAATTCTCGGTGCAGGTGAGAGTGAATGTGCAAGCCGCTGAAAAGGGGCTATACTGAAAAACGTGGTGGTCACAATCCTTGACGACGGCATTGAGAGAAATCACCCGACCTGGCACCCAATTACGATTCTTATGCAAGCTATGACGTGAACGGCAATGACTATGACC CAAGCCCTAGGTACGATGCAAGTAACGAGAACAAGCACGGCACACGGTGCCTGGCGAGGTGCGTGTAGCGCAATAATAGCTACTGCATTGTGGGCATCGCTACAACGCCAAGATCGGTGGAATCCGCATGCTGATGGCGACGTGGTGGAAAGCAAGTCCCTCGGCATACGGCCTAACTACATTGACATTTACTCCGCATCATGGGGACCGGACGACGATGGTAAGACTGTAGATGGGCCCGGACGATTGGCTAAACAGGCTTTTCGAGTACGGGATCAAAAAGGGCCGCCAGGGACTGGGCAGCATCTTTGTGGGCTAGCGGAAACGGTGGCAGAGAGGGGAGATTATTGTAGCTGCGACGGGTATACCACTCTATATACTATTTCCGTCAGCTCAGCTACTGAAAATGGCTACAAGCCTTGGTATCTGGAGGAGTGTGCAAGCACGCTGGCCACCACATACTCATCCGGGGCATTCTACGAACGCAAAATCGTCACAACCTGATCTGAGACAACGGTGTACTGACGGCATACTGGCACCTCTGTGAGCGCCCCGATGGTAGCCGGATCATCGCCCTGGCGCTGGAGGCCAATAGTCAGCTGACCTGGCGGATGTGCAGCACCTGCTGGTGAAAACCTCTCGCCAGCCACTTGAAGGCATCCGACTGAAAAGTGAATGGCGCCGGCACAAGTGAAGCACTTTTACGTTTTCGGCCTGGTGTGCTGAGGCATTGGTAGTCGAGGCA AAGAAGTGGACCGCCGTGCCAGTCAGCACATGTGCGTGGCAGCATCCGACAAGAGGCCTCGAAGCATTCCCTGGTGCAGGTGCTGCGCACCACAGCACTGACTTCCGCATGTGCTGAGCATAGCGATCAGAGAGTCGTGTATCTTGAACATGTTGTCGTGAGAACGTAATCTCTCATCCTCGAGGGGCGACTTGCAGATCTACCTGTGAGTCCGCTCTGGACCAAGTCCCAGCTGCTCGCAAAGCGGCTTCTTGATCTGTCTAACGAGGGCTTCACTAATTGGGAGTTCATGACCGTGCATTGCTGGGGCGAGAAGGCGGAGGGCCAGTGGACGCTCGAGATTCA GGACCTGCCAGCCAGGTGAGAAATCCCGAAAAGCAGGGCAATCTGGAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG214067 representing NM_138323
 Red=Cloning site Green=Tags(s)

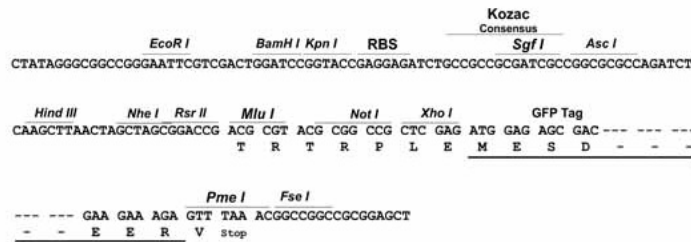
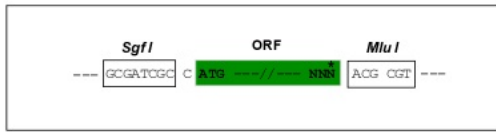
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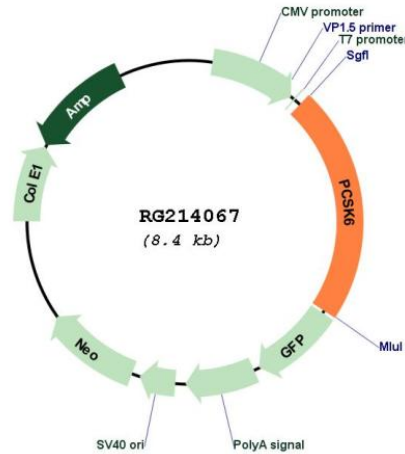
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_138323

ORF Size: 1869 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_138323.1](#), [NP_612196.1](#)

RefSeq Size: 3208 bp

RefSeq ORF: 1872 bp

Locus ID: 5046

UniProt ID: [P29122](#)

Cytogenetics: 15q26.3

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 the trans-Golgi network where a second autocatalytic event takes place and the catalytic activity is acquired. The encoded protease is constitutively secreted into the extracellular matrix and expressed in many tissues, including neuroendocrine, liver, gut, and brain. This gene encodes one of the seven basic amino acid-specific members which cleave their substrates at single or paired basic residues. Some of its substrates include transforming growth factor beta related proteins, proalbumin, and von Willebrand factor. This gene is thought to play a role in tumor progression and left-right patterning. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Feb 2014]