

## Product datasheet for **RC402763**

### GRK5 (NM\_005308) Human Mutant ORF Clone

#### Product data:

Product Type:	Mutant ORF Clones
Product Name:	GRK5 (NM_005308) Human Mutant ORF Clone
Mutation Description:	Q41L
Affected Codon#:	41
Affected NT#:	122
Nucleotide Mutation:	GRK5 Mutant (Q41L), Myc-DDK-tagged ORF clone of Homo sapiens G protein-coupled receptor kinase 5 (GRK5) as transfection-ready DNA
Effect:	Decreased mortality in heart failure, association with
Symbol:	GRK5
Synonyms:	FP2025; GPRK5
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_005308
ORF Size:	1770 bp
Restriction Sites:	Sgfi-MluI



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**ORF Nucleotide Sequence:**

>RC402763 representing NM\_005308  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGCTGAAAAACATCGTGGCCAACACGGTCTTGCTGAAAGCCAGGGAAGGGGCGGAGGAAAGCGCA  
 AAGGGAAAAGCAAGAAGTGAAAAGAAATCCTGAAGTCCCTCACATTAGCCTGTGTGAAGACCTCCGAAG  
 GACCATAGACAGAGATTACTGCAGTTTATGTGACAAGCAGCAATCGGGAGGCTGCTTTCCGGCAGTTT  
 TGTGAAACCAGGCCTGGGCTGGAGTGTACATTCAGTTCCTGGACTCCGTGGCAGAATATGAAGTACTC  
 CAGATGAAAAACTGGGAGAGAAAGGAAAGAAATTATGACCAAGTACCTACCCCAAAGTCCCCTGTTTT  
 CATAGCCCAAGTTGGCCAAGACCTGGTCTCCAGACGGAGGAGAAGCTCTACAGAAGCCGTGCAAAGAA  
 CTCTTTTCTGCCTGTGCACAGTCTGTCCACGAGTACCTGAGGGGAGAACCATTCCACGAATATCTGGACA  
 GCATGTTTTTTGACCGCTTCTCCAGTGAAGTGGTTGAAAAGGCAACCGGTGACAAAAACACTTTCAG  
 GCAGTATCGAGTCTAGGAAAAGGGGGTTCGGGGAGGCTGTGCCTGCCAGGTTCCGGGCCACGGGTAAA  
 ATGTATGCCTGCAAGCGCTTGGAGAAGAAGAGGATCAAAAAGAGGAAAGGGGAGTCCATGGCCCTCAATG  
 AGAAGCAGATCCTCGAGAAGGTCAACAGTCAGTTTGTGGTCAACCTGGCCTATGCCTACGAGACCAAGGA  
 TGCCTGTGCTTGGTCTGACCATCATGAATGGGGTGACCTGAAGTTCACATCTACAACATGGGCAAC  
 CCTGGCTTCGAGGAGGAGCGGCCTTGTTTATGCGGCAGAGATCCTCTGCGGCTTAGAAGACCTCCACC  
 GTGAGAACACCGTCTACCGAGATCTGAAACCTGAAAACATCCTGTTAGATGATTATGGCCACATTAGGAT  
 CTCAGACCTGGGCTTGGCTGTGAAGATCCCGAGGGAGACCTGATCCGCGCCGGGTGGGCACTGTTGGC  
 TACATGGCTCCAGAGTCTGAACAACCAGAGGTACGGCTGAGCCCGACTACTGGGCTTGGCTGCC  
 TCATCTATGAGATGATCGAGGGCAGTCCCGTTCGCGGCCGCAAGGAGAAGGTGAAGCGGGAGGAGGT  
 GGACCGCGGGTCTGGAGACGGAGGAGTGTACTCCACAAGTCTCCGAGGAGGCAAGTCCATCTGC  
 AAGATGCTGCTCACGAAAGATGCGAAGCAGAGGCTGGGCTGCCAGGAGGAGGGGCTGCAGAGGTCAAGA  
 GACACCCCTTCTCAGGAACATGAACCTCAAGCGCTTAGAAGCCGGGATGTTGGACCCTCCCTTCGTTCC  
 AGACCCCGCGCTGTGTACTGTAAGGACGTGCTGGACATCGAGCAGTTCTCCACTGTGAAGGGGCTCAAT  
 CTGGACCACACAGACGACTTCTACTCCAAGTCTCCACGGGCTCTGTGTCCATCCCATGGCAAAACG  
 AGATGATAGAAACAGAATGCTTTAAGGAGCTGAACGTGTTTGGACCTAATGGTACCCTCCGCCAGATCT  
 GAACAGAAACCACCTCCGAACCGCCAAAGAAAGGGTCTCCAGAGACTCTCAAGCGGCAGCATCAG  
 AACAAATCCAAGATTCCGCCAGCTCCAAGACCAGTTTAACCACCACATAAACTCAAACCATGTCAGCT  
 CGAACTCCACCGAAGCAGC

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:**

>RC402763 representing NM\_005308  
 Red=Cloning site Green=Tags(s)

MELENIVANTVLLKAREGGGKRKGSKKWKEILKFPHISLCEDLRRTIDRDYCSLCKQPIGRLLFRQF  
 CETRPGLECYIQFLDSVAEYVTPDEKLGEKGKEIMTKYLTPKSPVFAIQVQDLVSQTEEKLLQKPKCE  
 LFSACAQSVHEYLRGEPFHEYLDSMFFDRFLQWKWLERQPVTKNTRQYRVLGKGGFGEVCACQVRATGK  
 MYACKRLEKKRIKKRKGESMALNEKQILEKVNQSFFVNLAYAYETKDALCLVLTIMNGDLKFHIYNMGN  
 PGFEERALFYAAEILCGLEDLHRENTVYRDLKPENILLDDYGHIRISDLGLAVKIPEDLIRGRVGTVG  
 YMAPEVLNNQRYGLSPDYWGLGCLYEMIEGQSPFRGRKEKVKREEVDRRVLTEEVYSHKFSEEAKSIC  
 KMLLTKDAKQRLGCQEEGAAEVKRHPFFRNMFKRLEAGMLDPPFVPDPRAVYCKDVLIDIEQFSTYKGVN  
 LDHTDDDFYSKFSSTGVSIPWQNMIEETCFKELNVFPGNGLPPDLNRNHPPEPPKGLLQRLFKRQHQ  
 NNSKSSPSSKTSFNHHINSNHVSSNSTGSS

SGP**TRRRLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**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).

**RefSeq:**

[NP\\_005299](#)

**RefSeq Size:**

1770 bp

**RefSeq ORF:**

1773 bp

**Locus ID:**

2869

<b>Cytogenetics:</b>	10q26.11
<b>Domains:</b>	RGS, pkinase, S_TK_X, TyrKc, S_TKc
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Chemokine signaling pathway, Endocytosis
<b>MW:</b>	64.9 kDa
<b>Gene Summary:</b>	This gene encodes a member of the guanine nucleotide-binding protein (G protein)-coupled receptor kinase subfamily of the Ser/Thr protein kinase family. The protein phosphorylates the activated forms of G protein-coupled receptors thus initiating their deactivation. It has also been shown to play a role in regulating the motility of polymorphonuclear leukocytes (PMNs). [provided by RefSeq, Jul 2008]