

Product datasheet for **RC216602**

GRK4 (NM_182982) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRK4 (NM_182982) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GRK4
Synonyms:	GPRK2L; GPRK4; GRK4a; IT11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC216602 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGCTCGAGAACATCGTGGCCAACCTCGCTGCTGCTGAAAGCGCGTCAAGGAGGATATGGCAAAAAA
 GTGGTCGTAGTAAAAATGGAAGGAGATACTGACTGCCTCCTGTGACCCAGTGCAGTGTAGACTTAGACA
 TTCCATTGAAAAGGATTATAGCAGTCTTTGTGACAAGCAACCGATAGGAAGACGCTCTTTCAGGCAGTTC
 TGTGATACCAAACCCACTCTAAAGAGGCACATTGAATTCTTGGATGCAGTGGCAGAATATGAAGTTGCCG
 ATGATGAGGACCGAAGTATTGTGGACTGTCAATCTTAGATAGATTCTTCAATGATAAGTTGGCAGCCCC
 TTTACCAGAAATACCTCCAGATGTTGTGACAGAATGTAGATTGGGACTGAAGGAGGAGAACCCTTCCAAA
 AAAGCCTTTGAGGAATGTACTAGAGTTGCCATAACTACCTAAGAGGGGAACCTTTGAAGAATACCAAG
 AAAGCTCATATTTTCTCAGTTTTTACAATGGAATGGCTGAAAGGCAACCCGTAACAAAGAACACATT
 TAGACATTACAGAGTTCTAGGAAAAGGCGGATTTGGAGAGTTTGCSCCTGTCAAGTGCAGCCACAGGA
 AAAATGTATGCCTGCAAAAAGCTACAAAAAAAAGAATAAAGAAGAGGAAAGGTGAAGCTATGGCTCTAA
 ATGAGAAAAGAATTCTGGAGAAAGTGCAAAAGTAGATTCTGATGTTAGTTTACGCTACGCTTATGAAACCA
 AGATGCCTTGTGCTTGGTGTCCACATTATGAATGGAGGGGATTTGAAGTTTACATTTACAACCTGGGC
 AATCCCGCTTTGATGAGCAGAGAGCCGTTTTCTATGCTGCAGAGCTGTGTTGCGCTTGGAAAGATTTAC
 AGAGGGAAAGAATTGTATACAGAGACTTGAAGCCTGAGAATATTTCTCTTGTATGATCGTGGACACATCCG
 GATTTCCAGACCTCGTTTGGCCACAGAGATCCCAGAAGGACAGAGGGTTCGAGGAAGAGTTGGAACAGTC
 GGCTACATGGCACCTGAAGTTGTCAATAATGAAAAGTATACGTTTAGTCCCGATTGGTGGGACTTGGCT
 GTCTGATCTATGAAATGATTCAAGGACATTCTCCATTCAAAAAATACAAAGAGAAAAGTCAAAATGGGAGGA
 GGTCGATCAAAGAATCAAGAATGATACCGAGGAGTATTCTGAGAAGTTTTTCAGAGGATGCCAAATCTATC
 TGCAGGATGTTACTACCAAGAATCCAAGCAAGCGGCTGGGCTGCAGGGCGAGGGAGCGCTGGGGTGA
 AGCAGCACCCCGTGTCAAGGACATCAACTTCAGGAGGCTGGAGGCAAACATGCTGGAGCCCCCTTCTG
 TCCTGATCCTCATGCCGTTTACTGTAAGGACGCTCCTGGATATCGAGCAGTTCTCGCGGTGAAAGGGATC
 TACCTGGACACCCGAGATGAAGACTTCTATGCTCGGTTTGTACCAGGTTGTCTCCATCCCTGGCAGA
 ATGAGATGATCGAATCTGGGTGTTTCAAAGACATCAACAAAAGTGAAGTGAAGGAGCTTTGCCATTAGA
 TCTAGACAAGAACATACATACCCCGTTTCCAGACCAAACAGAGGCTTCTTCTATAGACTTTCAGAAGA
 GGGGGCTGCCTGACCATGGTCCCAGTGAAGAAGTGAACCCAAGCAATGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC216602 protein sequence
 Red=Cloning site Green=Tags(s)

MELNIVANSLLLKARQGGYGKKSGRSKKWEILTLPPVVSQCSSELRHSIEKDYSSLCDKQPIGRRLFRQF
 CDTKPTLKRHIEFLDAVAEYEVADDEDSDCGLSILDRFFNDKLAAPLPEIPPDVVTECRLGLKEENPSK
 KAFEECTRVAHNYLRGEPFEEYQESSYFSQFLQWKWLERQPVTKNTFRHYRVLGKGGFGEVCACQVRATG
 KMYACKKLQKKRIKKRKGAMALNEKRILEKVQSRFVVSLEYAYETKDALCLVLTIMNGDLKFHIYNLG
 NPGFDEQRAVFYAAELCCGLEDLQRERIVYRDLKPENILLDRGHIRISDLGLATEIPEGQVRVGRVGTV
 GYMAPEVVNNEYTFSPDWGLGCLYEMIQGHSPPFKYKEVKWEEVDQRINKNDEEYSEKFSKDAKSI
 CRMLLTKNPSKRLGCRGEGAAGVKQHPVFKDINFRLEANMLEPPFCPPHVAVYCKDVLIDIEQFSVAVKGI
 YLDTADEDFYARFATGCVSIPWQNEMIESGCFKDKINKSESEALPLDLKNIHTPVSRRNRFYRFLFR
 GGCLTMVPSEKEVEPKQC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6464_e03.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_182982

ORF Size: 1734 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.

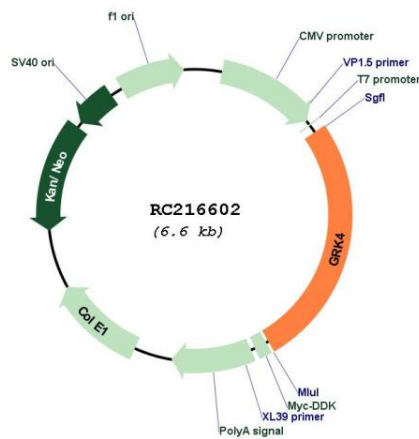
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

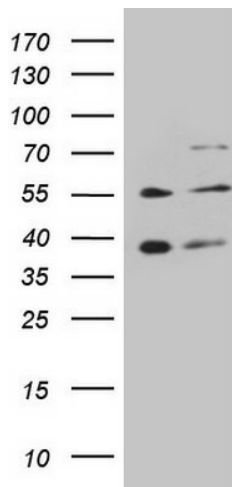
RefSeq: [NM_182982.3](#)
RefSeq Size: 2321 bp
RefSeq ORF: 1737 bp
Locus ID: 2868
UniProt ID: [P32298](#)
Cytogenetics: 4p16.3
Protein Families: Druggable Genome, Protein Kinase
Protein Pathways: Chemokine signaling pathway, Endocytosis
MW: 66.6 kDa

Gene Summary: 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 its deactivation. This gene has been linked to both genetic and acquired hypertension. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2013]

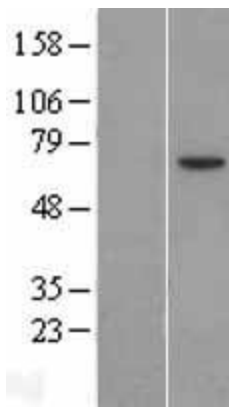
Product images:



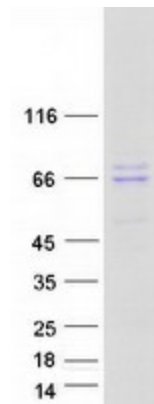
Circular map for RC216602



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GRK4 (Cat# RC216602, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GRK4 (Cat# [TA806069]). Positive lysates [LY405296] (100ug) and [LC405296] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY405296]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216602 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GRK4 protein (Cat# [TP316602]). The protein was produced from HEK293T cells transfected with GRK4 cDNA clone (Cat# RC216602) using MegaTran 2.0 (Cat# [TT210002]).