

Product datasheet for **RC214569**

GRK1 (NM_002929) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRK1 (NM_002929) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GRK1
Synonyms:	GPRK1; RHOK; RK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC214569 representing NM_002929
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGATTTGCGGTCTTTGGAGACCGTGGTGGCCAACCTCTGCCTTCATCGCCGCCCGAGGCAGCTTTGACG
 GCAGCAGCTCCCAACCCTCCCGGACAAGAAGTACCTGGCCAAGCTCAAGCTGCCCCGCTGTCCAAGTG
 TGAGTCCCTCCGCGACAGCCTCAGCCTGGAGTTTGGAGTGTGTGCTTGAGCAGCCATCGCAAGAAG
 CTCTTTCAGCAGTTCTACAATCGGCAGAGAAGCACCTGCCGGCCCTGGAGCTCTGGAAAGACATCGAGG
 ACTATGACACGGCAGACAATGACCTCCAGCCACAGAAGGCCAGACCATCTGGCCAGTACCTGGACCC
 CCAGGCCAAACTTTCTGCAGCTTCTGGATGAGGGGATAGTGGCGAAGTTTAAAGAGGGGCTGTGGAG
 ATCCAGGACGGGCTTCCAGCCCTGCTGCAGGCCACCTGGCACACCTGGGCCAAGCCCCCTCCAGG
 AGTACCTGGGCAGCCTGTACTTCTGAGTTTCTGCAGTGAAGTGGCTGGAAGCCAGCCCATGGGGGA
 GGACTGGTTCTGGACTCAGGGTCTGGGAAAGGGGGTTCGGGGAGGTGTCGGCCTGCCAGATGAAG
 GCGACCGCAAGCTGTATGCCTGCAAGAAGCTGAACAAGAAGCGGCTGAAGAAGGGAAGGGCTACCAGG
 GTGCTATGGTGGAGAAGAAGATTCTGATGAAAGTACACAGCAGGTTTCATCGTGTCTCTGGCCTATGCGTT
 TGAAACCAAAGCCGACCTCTGTCTGGTGTGACCATCATGAACGGAGGTGACATCAGGTACCACATCTAC
 AACGTGAATGAGGAGAACCCTGGCTTCCCGGAGCCGCGCCCTCTTCTACACGGCGCAGATCATCTGCG
 GCCTGGAGCACCTGCACCAGAGCGGATCGTCTACCGCACCTCAAGCCCGAGAAGCTGTCTGGACAA
 TGACGGCAATGTCGGATCTCTGACCTTGGGCTGGCCGTGGAGCTGTGGACGGACAGAGCAAGACCAAG
 GGCTACGACGGGACCCAGGTTTCATGGCCCCGAGCTCCTGCAGGGCGAGGAGTACGACTTCTCCGTGG
 ACTACTTTGCCCTGGGGTCCACCTGTATGAGATGATTGCGGCCAGAGGACCTTCCGAGCCCTGGAGA
 GAAGGTGGAGAACAAGGAGCTGAAGCACCGGATCATCTCAGAGCCGTGAAGTACCCTGATAAGTTCAGC
 CAGGCCAGCAAGGACTTCTGCGAGGCGCTGCTGGAGAAGGACCCGGAGAAGCGCCTGGGGTTCAGAGATG
 AGACCTGCGACAAGCTCCGTGCCACCCCTCTTCAAGGACCTTAACTGGAGGCAGCTGGAGGCTGGGAT
 GCTGATGCCCCCTTTCATCCAGACTCCAAAAGTGTCTACGCAAAGGATATTTCAGGACGTGGGTGCCTTT
 TCCACCGTCAAAGGTGTGGCCTTTGACAAAACAGACACAGAATTCTTTCAGGAATTTGCCACTGGCAACT
 GCCCATCCCCTGGCAGGAGGATGATCGAGACGGGCATCTTTGGCGAGCTGAACGTGTGGCGCTCGGA
 CGGTGAGATGCCGACGACATGAAGGGCATCTCCGGGGCTCCAGCTCCTCGTCCAAGTCAGGGATGTGT
 CTGGTTTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214569 representing NM_002929
 Red=Cloning site Green=Tags(s)

MDFGSLETVVANSAFIAARGSFDGSSSQPSRDKKYLAKLKLPLPSKCESLRDSLSEFESVLCLEQPIGKK
 LFQQFLQSAEKHLPALWLDIEDYDTADNDLQPQKAQTILAQYLDPAKLFCSFLDEGIVAKFKEGPVE
 IQDGLFQPLLQATLAHLGQAPFQEYLGSLYFLRFLQWKWLEAQPMDWFLDFRVLGKGGFGEVSACQMK
 ATGKLYACKKLNKRLKRRKGYQGAMVEKKILMKVHSRFLVSLAYAFETKADLCLVMTIMNGDIRYHIY
 NVNEENPGFPEPRALFYTAQIICGLEHLHQRRIVYRDLKPEVLLDNDGNVRISDLGLAVELLDGQSKTK
 GYAGTPGFMAPELLQGEYDFSDYFALGVTLYEMIAARGPFRARGEKVENKELKHRIISEPVKYPDKFS
 QASKDFCEALLEKDPEKRLGFRDETCDKLRAHPLFKDLNWRQLEAGMLMPPFIPDSKTVYAKDIQDVGAF
 STVKGVAFDKTDTEFFQEFATGNCPWPQEEMIETGIFGELNVWRSQGMPDMDKGISGGSSSSSKSGMC
 LVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6275_e04.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_002929

ORF Size: 1689 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_002929.2](#), [NP_002920.1](#)

RefSeq Size: 2100 bp

RefSeq ORF: 1692 bp

Locus ID: 6011

UniProt ID: [Q15835](#)

Cytogenetics: 13q34

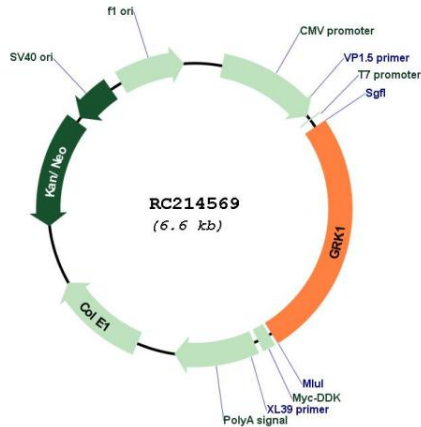
Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Chemokine signaling pathway, Endocytosis

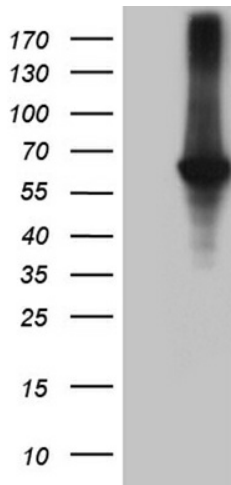
MW: 63.3 kDa

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 rhodopsin and initiates its deactivation. Defects in GRK1 are known to cause Oguchi disease 2 (also known as stationary night blindness Oguchi type-2). [provided by RefSeq, Jul 2008]

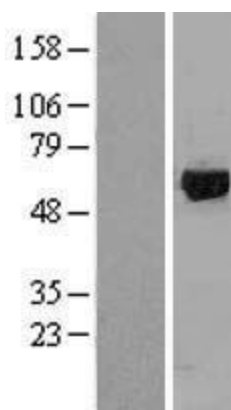
Product images:



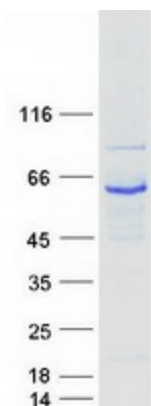
Circular map for RC214569



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GRK1 (Cat# RC214569, 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-GRK1 (Cat# [TA811857]). Positive lysates [LY419010] (100ug) and [LC419010] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419010]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214569 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GRK1 protein (Cat# [TP314569]). The protein was produced from HEK293T cells transfected with GRK1 cDNA clone (Cat# RC214569) using MegaTran 2.0 (Cat# [TT210002]).