

Product datasheet for **RC402681**

GRK1 (NM_002929) Human Mutant ORF Clone

Product data:

Product Type:	Mutant ORF Clones
Product Name:	GRK1 (NM_002929) Human Mutant ORF Clone
Mutation Description:	P391H
Affected Codon#:	391
Affected NT#:	1172
Nucleotide Mutation:	GRK1 Mutant (P391H), Myc-DDK-tagged ORF clone of Homo sapiens G protein-coupled receptor kinase 1 (GRK1) as transfection-ready DNA
Effect:	Sionry nih blindness, Ouhi ype
Symbol:	GRK1
Synonyms:	GPRK1; RHOK; RK
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_002929
ORF Size:	1689 bp
Restriction Sites:	Sgfi-Mlul



[View online »](#)

ORF Nucleotide Sequence:

>RC402681 representing NM_002929
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGATTCGGGTCTTTGGAGACCGTGGTGGCCAACCTCTGCCTTCATCGCCGCCGAGGCAGCTTTGACG
 GCAGCAGCTCCCAACCTCCCGGACAAGAAGTACCTGGCCAAGCTCAAGCTGCCCCGCTGTCCAAGTG
 TGAGTCCCTCCGCGACAGCCTCAGCCTGGAGTTTGAGAGTGTGTGCTTGGAGCAGCCATCGGCAAGAAG
 CTCTTTTACAGAGTTCTACAATCGGCAGAGAAGCACCTGCCGGCCTGGAGCTCTGAAAAGACATCGAGG
 ACTATGACACGGCAGACAATGACCTCCAGCCACAGAAGGCCAGACCATCTGGCCAGTACCTGGACCC
 CCAGGCCAAACTCTTCTGCAGCTTCTGGATGAGGGGATAGTGGCGAAGTTAAGGAGGGGCTGTGGAG
 ATCCAGGACGGGCTTCCAGCCCTGCTGCAGGCCACCTGGCACACCTGGGCCAAGCCCCCTCCAGG
 AGTACCTGGGCAGCCTGACTTCTGAGGTTCTGCAGTGAAGTGGTGAAGCCAGCCCATGGGGGA
 GGACTGGTTCTGGACTTCAGGGTCTGGGAAAGGGGCTTCGGGGAGGTGTGGCCTGCCAGATGAAG
 GCGACCCGCAAGCTGTATGCCTCAAGAAGCTGAACAAGAAGCGCTGAAGAAGAGGAAGGGCTACCAGG
 GTGCTATGGTGGAGAAGAAGATTCTGATGAAAGTACACAGCAGTTTCATCGTGTCTCTGGCCTATGCGTT
 TGAAACCAAAGCCGACCTCTGTCTGGTATGACCATCATGAACGGAGGTGACATCAGGTACCACATCTAC
 AACGTGAATGAGGAGAACCCTGGCTTCCCGGAGCCGCGCCCTCTTCTACAGGCGCAGATCATCTGCG
 GCCTGGAGCACCTGCACCAGAGGCGGATCGTCTACCGCACCTCAAGCCCAGAACGTGCTGTGGACAA
 TGACGGCAATGTCGGATCTCTGACCTTGGGCTGGCCGTGGAGCTGTGGACGGACAGAGCAAGACCAAG
 GGCTACGACGGACCCAGGTTTCATGGCCCCGAGCTCTGCAGGGCAGGAGTACGACTTCTCCGTGG
 ACTACTTTGCCCTGGGGTACCCTGTATGAGATGATTGCGGCCAGAGGACACTCCGAGCCGTGGAGA
 GAAGGTGGAGAACAAGGAGCTGAAGCACCGGATCATCTCAGAGCCGTGAAGTACCCTGATAAGTTCAGC
 CAGGCCAGCAAGGACTTCTGCGAGGCGCTGCTGGAGAAGGACCCGGAGAAGCGCCTGGGGTTTCAAGATG
 AGACCTGCGACAAGCTCCGTGCCACCCCTCTTCAAGGACCTTAACTGGAGGCAGCTGGAGGCTGGGAT
 GCTGATGCCCCCTTTCATCCCAGACTCCAAAAGTCTACGCAAAGGATATTTCAGGACGTGGGTGCCCTT
 TCCACCGTCAAAGGTGTGGCCTTTGACAAAACAGACACAGAATCTTTCAGGAATTTGCCACTGGCAACT
 GCCCATCCCCTGGCAGGAGGATGATCGAGACGGGCATCTTGGCGAGCTGAACGTGTGGCGCTCGGA
 CGGTGAGTCCGGACGACATGAAGGGCATCTCCGGGGCTCCAGCTCCTCGTCCAAGTCAGGGATGTGT
 CTGGTTTCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

>RC402681 representing NM_002929
 Red=Cloning site Green=Tags(s)

MDFGSLETVVANSAFIAARGSFDSQSPSRDKKYLAKLKLPLPSKCESLRDSLSEFESVLCLEQPIGKK
 LFQQFLQSAEKHLPALWLDIEDYDTADNDLQPQKAQTILAQYLDPAKLFCSFLDEGIVAKFKEGPVE
 IQDGLFQPLLQATLAHLGQAPFQEYLGSLYFLRFLQWKWLEAQPMGEDWFLDFRVLGKGGFGEVSACQMK
 ATGKLYACKKLNKKRLLKRGYQGMVEKKILMKVHSRFIVSLAYAFETKADLCLVMTIMNGDIRYHIY
 NVNEENPGFPEPRALFYTAQIICGLEHLHQRRIVYRDLKPEVLLDNDGNVRIISDLGLAVELLDGQSKTK
 GYAGTPGFMAPELLQGEEYDFSDYFALGVTLYEMIAARGHFRARGEKVENKELKHRIISEPVKYPDKFS
 QASKDFCEALLEKDPEKRLGFRDETCDKLRAHPLFKDLNWRQLEAGMLMPPFIPDSKTVYAKDIQDVGAF
 STVKGVAFDKTDTEFFQEFATGNCPIPWQEEMIETGIFGELNVWRSQGMPDDMKGISGGSSSSSKSGMC
 LVS

SGP**TRTRRLEQKLI**SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-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_002920](#)

RefSeq Size:

1689 bp

RefSeq ORF:

1692 bp

Locus ID:

6011

Cytogenetics:	13q34
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Chemokine signaling pathway, Endocytosis
MW:	61.9 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]