

Product datasheet for **RC402678**

GRK1 (NM_002929) Human Mutant ORF Clone

Product data:

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|---------------------------|--|
| Product Type: | Mutant ORF Clones |
| Product Name: | GRK1 (NM_002929) Human Mutant ORF Clone |
| Mutation Description: | T298M |
| Affected Codon#: | 298 |
| Affected NT#: | 893 |
| Nucleotide Mutation: | GRK1 Mutant (T298M), Myc-DDK-tagged ORF clone of Homo sapiens G protein-coupled receptor kinase 1 (GRK1) as transfection-ready DNA |
| Effect: | Reiniis pimenos |
| 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 |



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ORF Nucleotide Sequence:

>RC402678 representing NM_002929
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGATTT**CGGGTCTTTGGAGACCGTGGTGGCCA**ACTCTGCCTTCATCGCGCCCGAGGCAGCTTTGACG
 GCAGCAGCTCCCAACCC**TCCCGGACAAGAAGTACCTGGCCAAGCTCAAGCTGCCCCCGCTGTCCAAGTG**
 TGAGTCCCTCCCGCAGACGCTCAGCCTGGAGTTT**GAGAGTGTGTGCTTGGAGCAGCCATCGGCAAGAAG**
 CTCTTT**CAGCAGTTCTACAATCGGCAGAGAAGCACCTGCCGGCCCTGGAGCTCTGAAAAGACATCGAGG**
 ACTATGACACGGCAGACAATGACCTCCAGCCACAGAAGGCC**CAGACCATCCTGGCCAGTACCTGGACCC**
 CCAGGCCAAACTCTTCTGCAGCTTCTGGATGAGGGGATAGTGGCGAAGTTT**AAGGAGGGCCTGTGGAG**
 ATCCAGGACGGGCTCTTCCAGCCCTGCTGCAGGCCACCCTGGCACACCTGGGCCAAGCCCCCTTCCAGG
 AGTACCTGGGCAGCCTGACTTCTGAGGTTCTGCAGTGAAGTGGCTGGAAGCCAGCCCATGGGGGA
 GGACTGGTTCTGGACTT**CAGGGTCTGGGAAAGGGGCTTCGGGGAGGTGTGGCCTGCCAGATGAAG**
 GCGACCCGCAAGCTGTATGCCTCAAGAAGCTGAACAAGAAGCGCTGAAGAAGAGGAAGGGCTACCAGG
 GTGCTATGGTGGAGAAGAAGATTCTGATGAAAGTACACAGCAGGTT**CATCGTGTCTCTGGCCTATGCGTT**
 TGAAACCAAAGCCGACCTCTGTCTGGT**GATGACCATCATGAACGGAGGTGACATCAGGTACCACATCTAC**
 AACGTGAATGAGGAGAACCCTGGCTTCCCGGAGCCGCGCCCTTCTACATGGCGCAGATCATCTGCG
 GCCTGGAGCACCTGCACCAGAGCGGATCGTCTACCGCAGCTCAAGCCCAGAACGTGCTGTGGACAA
 TGACGGCAATGTCGGATCTCTGACCTTGGGCTGGCCGTGGAGCTGTGGACGGACAGAGCAAGACCAAG
 GGCTACGCAGGGACCCAGGTT**CATGGCCCCGAGCTCCTGCAGGGCAGGAGTACGACTTCTCCGTGG**
 ACTACTTTGCCCTGGGGT**CACCCTGTATGAGATGATTGCGGCCAGAGGACCCTTCCGAGCCGTGGAGA**
 GAAGGTGGAGAACAAGGAGCTGAAGCACCGGATCATCTCAGAGCCCGTGAAGTACCCTGATAAGTTCAGC
 CAGGCCAGCAAGGACTTCTGCGAGGCGCTGCTGGAGAAGGACCCGGAGAAGCGCCTGGGGTT**CAGAGATG**
 AGACCTGCGACAAGCTCCGTGCCACCCCTCTTCAAGGACCTTAACTGGAGGCAGCTGGAGGCTGGGAT
 GCTGATGCCCCCTTTCATCCAGACTCCAAA**ACTGTCTACGCAAAGGATATTCAGGACGTGGGTGCCTTT**
 TCCACCGTCAAAGGTGTGGCCTTTGACAAAACAGACACAGAATCTTTCAGGAATTTGCCACTGGCAACT
 GCCCATCCCCTGGCAGGAGGATGATCGAGACGGGCATCTTTGGCGAGCTGAACGTGTGGCGCTCGGA
 CGGT**CAGATGCCGGACGACATGAAGGGCATCTCCGGGGCTCCAGCTCCTCGTCCAAGTCAGGGATGTGT**
 CTGGTTCC

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

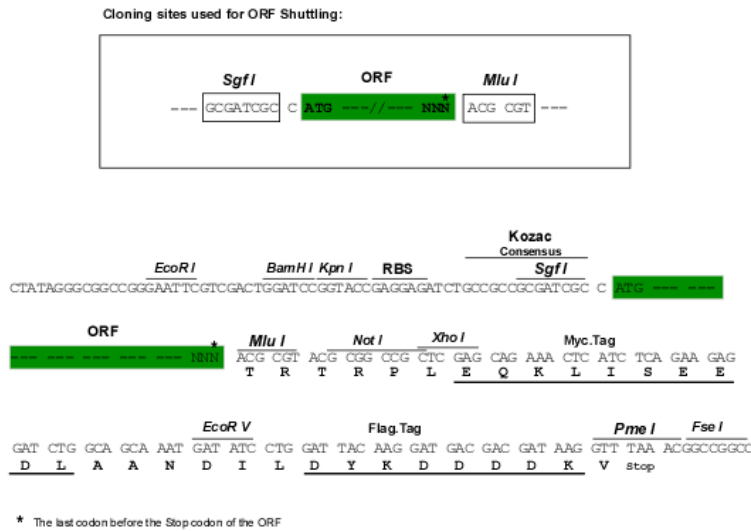
>RC402678 representing NM_002929
 Red=Cloning site Green=Tags(s)

MDFGSLETVVANSAFIAARGSFDGSSSQPSRDKKYLAKLKL**PPLSKCESLRDSL**SLEFESV**CLEQPIGKK**
 LFQQLQSAEKHLPAL**ELWKDIEDYDTADNDLQPQKAQ**TILAQYLD**PQAKLFC**SFLDEGIVAKFKEGPVE
 IQDGLFQ**PLLQATLAHLGQAPFQEY**LGSYFLRFLQ**WKWLEAQ**PMGEDWFLDFRVLGKG**GFGEVSACQMK**
 ATGKLYACKKLNK**RRLKKRKG**YGAMVEKKILMKVHSR**FIVSLAYAFETKADL**CCLVMTIMNGGDIRYHIY
 NVNEENPGFPEPRALFYMAQ**II**CGL**EH**LHQRRI**VYRDLK**PENVLLDNDGNVRI**SDLGLAV**ELLDGQ**S**TK
 GYAGTPGFMAPELLQ**GEEYDF**SVDYFALGVTL**YEMIA**ARGPFRARGEK**VENKELKHRII**SEPVKY**PD**KFS
 QASKDFCEAL**LEKDPEKRLG**FRDE**TCDKLRAHPL**FKDLNWRQ**LEAGMLMPPF**IPDSKTVYAKDIQDV**GAF**
 STVKGVA**FDKTDTEFFQ**E**FATGNCP**IPWQE**EMIETG**IFGELNVWRSDG**QMPDDMKGI**SGGSSSSSK**SGMC**
 LVS

SGP**TRTRRLEQKLI**SEED**LAANDILDYK**DDDDK**V**

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

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|--------------------------|--|
| 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] |