

Product datasheet for **RC205322**

GIRK1 (KCNJ3) (NM_002239) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GIRK1 (KCNJ3) (NM_002239) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GIRK1
Synonyms:	GIRK1; KGA; KIR3.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC205322 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCTGCACTCCGAAGGAAATTTGGGGACGATTATCAGGTAGTGACCACATCGTCCAGCGGCTCGGGCT
 TGCAGCCCCAGGGCCAGGCCAGGACCCTCAGCAGCAGCTTGTGCCAAGAAGAAGCGGCAGCGGTTTCGT
 GGACAAGAACGGCCGGTGAATGTACAGCACGGCAACCTGGGCAGCGAGACAAGCCGCTACCTCTCGGAC
 CTCTTACCACGCTGGTGGACCTCAAGTGGCGCTGGAACCTTTCATCTTATTCTCACCTACACCGTGG
 CCTGGCTTTTCATGGCGTCCATGTGGTGGGTGATCGCCTACACTCGGGGCGACCTGAACAAAGCCCACGT
 CGGTAACACACGCTTGGTGGCCAATGTCTATAACTCCCTTTCGCTTCTCTTCTTCATCGAGACG
 GAGGCCACCATCGGCTATGGCTACCGATACATCACAGACAAGTCCCCGAGGGCATCATCTCTTCTCT
 TCCAGTCCATCTGGGCTCCATCGTGGACGCTTCTCATCGGCTGCATGTTTCATCAAGATGTCCCAGCC
 CAAGAAGCGCGCCGAGACCTCATGTTCCAGCAGCAGCGGCTGATCTCCATGAGGGACGGAAAACACG
 CTTATGTTCCGGGTGGGCAACCTGCGCAACAGCCACATGGTCTCCGCGCAGATTCGCTGCAAGCTGCTCA
 AATCTCGGCAGACACCTGAGGGTGAATTCCTTCCCTTGACCAACTTGAAGTGGATGTAGGTTTTAGTAC
 AGGGGCGAGATCAACTTTTTCTTGTGCCCCCTCACAATTCGCCACGTGATCGATGCCAAAAGCCCCTTT
 TATGACCTATCCCAGCGAAGCATGCAAACTAAACAGTTCGAGATTGTCGTCATCTAGAAGGCATTGTGG
 AAACAACGGGATGACTTGTCAAGCTCGAACATCATATACTGAAGATGAAGTTCTTTGGGGTCATCGTTT
 TTTTCTGTAATTTCTTAGAAGAGGGATTCTTTAAAGTTGATTACTCCCAGTCCACGCAACATTTGAA
 GTCCCCACCCACCTACAGTGTAAAGAGCAGGAGGAAATGCTTCTCATGTCGTCCTTTAATAGCAC
 CAGCCATAACTAACAGCAAAGAAAGACATAATTTCTGTGGATGCTTAGATGGACTAGATGATTAATCA
 AAAACTACCATCTAAGCTGCAGAAAATTACTGGAAGAGAAGACTTCCCAAAAAACTCTTGAGGATGAGT
 TCTACAACCTCAGAAAAAGCCTACAGCTTGGGAGACTTGCCCATGAAACTCAACGAATAAGTTCAGTTC
 CGGGCAACTCAGAAGAAAACTGGTATCTAAAACCACCAAGATGTATCTGATCCCATGAGCCAGTCTGT
 GGCTGATTTGCCACAAAGCTTCAAAGATGGCTGGAGGAGCAGCTAGGATGGAAGGGAACCTTCCAGCC
 AAATTAAGAAAAATGAACCTGATCGTTCACA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205322 protein sequence
 Red=Cloning site Green=Tags(s)

MSALRRKFGDDYQVVTTSSSGSLQPQPGQDPQQQLVPKKRQRFVDKNGRCNVQHGNLGSSETSRYLSD
 LFTTLVDLKWRLNLFIFILTYTVAWLFMASMWWIAYTRGDLNKAHVGNYPVCVANVYVNFPSAFLFFIET
 EATIGYGYRYITDKCEGIIILFLFQSILGSI VDAFLIGCMFIKMSQPKKRAETLMFSEHAVISM RDGKLT
 LMFRVGNLRNSHMVSAQIRCKLLKSRQTPEGEFLPLDQLELDVGFSTGADQLFLVSP LTI RHVIDAKSPF
 YDLSQRSMQTKQFEIVVILEGIVETTGMTQARTSYTEDEVLWGHRRFPVISLEEGFFKVDYSQFHATFE
 VPTPPYSVKEQEEMLLMSSPLIAPAITNSKERHNSVECLDGLDDITTKLPSKLQKITGREDFPKLLRMS
 STTSEKAYSLGDLPMKLQRISVPGNSEEKL VSKTTKMLSDPMSQSVADLPPKLQKMAGGAARMEGNLPA
 KLRKMNSDRFT

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6026_h04.zip

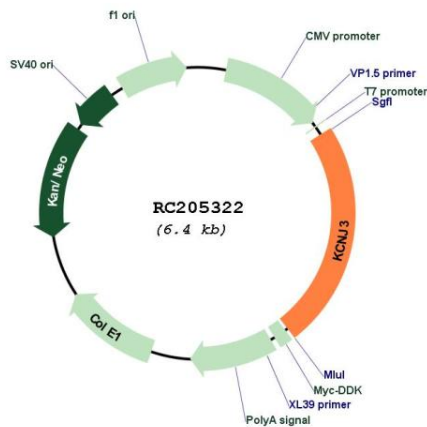
Restriction Sites:

Sgfl-Mlul

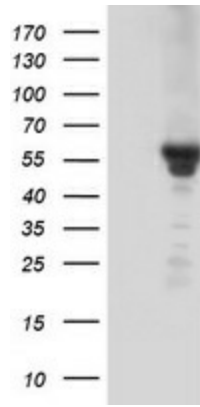
UniProt ID: [P48549](#)
Cytogenetics: 2q24.1
Domains: IRK
Protein Families: Druggable Genome, Ion Channels: Potassium, Transmembrane
MW: 56.7 kDa

Gene Summary: Potassium channels are present in most mammalian cells, where they participate in a wide range of physiologic responses. The protein encoded by this gene is an integral membrane protein and inward-rectifier type potassium channel. The encoded protein, which has a greater tendency to allow potassium to flow into a cell rather than out of a cell, is controlled by G-proteins and plays an important role in regulating heartbeat. It associates with three other G-protein-activated potassium channels to form a heteromultimeric pore-forming complex that also couples to neurotransmitter receptors in the brain and whereby channel activation can inhibit action potential firing by hyperpolarizing the plasma membrane. These multimeric G-protein-gated inwardly-rectifying potassium (GIRK) channels may play a role in the pathophysiology of epilepsy, addiction, Down's syndrome, ataxia, and Parkinson's disease. Alternative splicing results in multiple transcript variants encoding distinct proteins. [provided by RefSeq, May 2012]

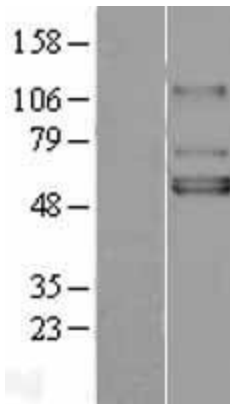
Product images:



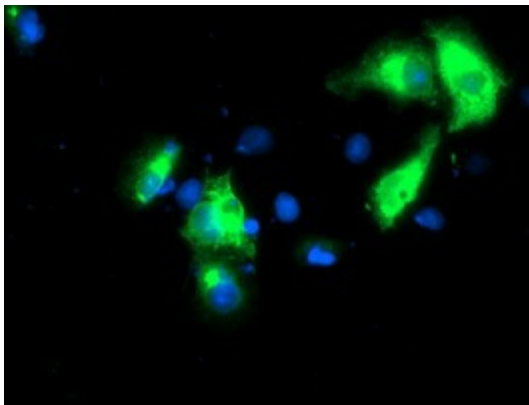
Circular map for RC205322



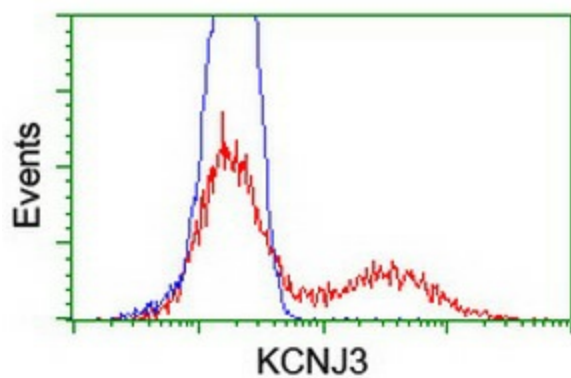
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY KCNJ3 (Cat# RC205322, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-KCNJ3 (Cat# [TA504152]). Positive lysates [LY400811] (100ug) and [LC400811] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400811]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205322 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Anti-KCNJ3 mouse monoclonal antibody ([TA504152]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY KCNJ3 (RC205322).



HEK293T cells transfected with either RC205322 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-KCNJ3 antibody ([TA504152]), and then analyzed by flow cytometry.