

Product datasheet for **RC207051**

Kir2.2 (KCNJ12) (NM_021012) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Kir2.2 (KCNJ12) (NM_021012) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Kir2.2 |
| Synonyms: | hIRK; hIRK1; hkir2.2x; IRK-2; IRK2; kcnj12x; KCNJN1; Kir2.2; Kir2.2v |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



[View online »](#)

ORF Nucleotide
Sequence:

>RC207051 representing NM_021012
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACCGCGGCCAGCCGGCCAACCCCTACAGCATCGTGTTCATCGGAGGAGGACGGGCTGCACCTGGTCA
CCATGTCGGGCGCCAACGGCTTCGCAACGGCAAGGTGCACACGCGCGCAGGTGCCCAACCGCTTCGT
CAAGAAGAAATGGCCAGTGAACATTGAGTTCGCAACATGGACGAGAAGTCACAGCGCTACCTGGCTGAC
ATGTTACCACCTGTGTGGACATCCGCTGGCGGTACATGCTGCTCATCTTCTCGTGGCCTTCCTGGCT
CCTGGTGTGTTCGGCATCATCTTCTGGGTATCGCGGTGGCACACGGTGACCTGGAGCCGGCTGAGGG
CCGGGGCCGCACACCCTGTGTGATGCAGGTGCACGGCTTCATGGCGGCCTTCTCTTCCATCGAGACG
CAGACCACCATCGGCTACGGGCTGCGTGTGTGACGGAGGAGTCCCCGGTGGCCGCTTTCATGGTGGTGG
CCCAGTCCATCGTGGGTCATCATCGACTCCTTCATGATTGGTGCCATCATGGCCAAGATGGCAAGGCC
CAAGAAGCGGGCAGACGCTGTGTTAGCCACAACCCGCTGGTGGCCCTGCGTGACGGCAAGCTCTGC
TCATGTGGCGTGTGGTAACTGCGCAAGAGCCACATTTGTGGAGGCCATGTGCGCGCGCAGCTCATCA
AGCCGCGGGTACCGAGGAGGGCGAGTACATCCCCTGGACCAGATCGACATCGATGTGGGCTTCGACAA
GGGCTGGACCGCATCTTCTGGTGTGCGCCATCACCATCTTGCATGAGATTGACGAGGCCAGCCCGCTC
TTCGGCATCAGCCGGCAGGACCTGGAGACGGACGACTTTGAGATCGTGGTTCATCTGGAAGGCATGGTGG
AGGCCACAGCCATGACACCCAGGCCCGCAGCTCCTACCTGGCCAATGAGATCCTGTGGGTCACCGCTT
TGAGCCCGTGTCTTCGAGGAGAAGAACCAGTACAAGATTGACTACTCGCACTCCACAAGACCTATGAG
GTGCCCTACGCCCGCTGCAGTGCAGGATCTGGTAGAGAACAAGTTCCTGCTGCCAGCCCAACT
CCTTCTGCTACGAGAACGAGCTGGCCTTCTGAGCCGTGACGAGGAGGATGAGGGCGACGGAGACCAGGA
CGGCCGAAGCCGGGACGGCCTCAGCCCCAGGCCAGGCATGACTTTGACAGACTCCAGGCTGGCGCGGG
GTCTGGAGCAGCGCCCTACAGACGGGAGTACAGATC

ACGCGTACGCGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207051 representing NM_021012
Red=Cloning site Green=Tags(s)

MTAASRANPYSIVSSEEDGLHLVTMSGANGFGNGKVHTRRRRCRNRFVKKNGQCNIIEFANMDEKSQRYLAD
MFTTCVDIRWRYMLLIFSLAFLASWLLFGIIFWVIAVAHGDLEPAEGRGRTPCVMQVHGFMAAFLFSIET
QTTIGYGLRCVTEECPVAVFMVVAQSIVGCIIDSFMIGAIMAKMARPKKRAQTLLFSHNAVVALRDGKLC
LMWRVGNLRKSHIVEAHVRAQLIKPRVTEEGEYIPLDQIDIDVGFDKGLDRIFLVSPITILHEIDEASPL
FGISRQDLETDDFEIVVILEGMVEATAMTTQARSSYLANEILWGHRFEPVLFEEKNQYKIDYSHFHKTYE
VPSTPRCSAKDLVENKFLLPANSFCYENELAFLSRDEEDEADGDQDGRSRDGLSPQARHDFDRLQAGGG
VLEQRPYRRESEI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg3903_b09.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_021012

ORF Size: 1299 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).

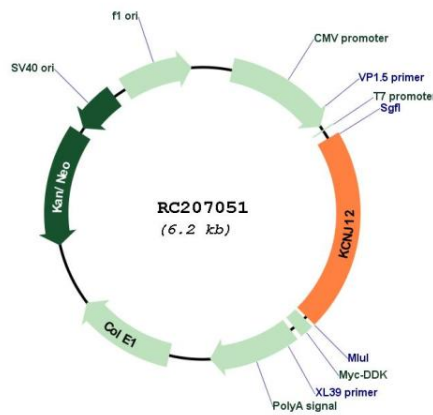
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_021012.5](#)

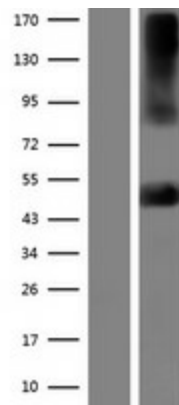
RefSeq Size: 5230 bp
RefSeq ORF: 1302 bp
Locus ID: 3768
UniProt ID: [Q14500](#)
Cytogenetics: 17p11.2
Protein Families: Druggable Genome, Ion Channels: Potassium, Transmembrane
MW: 48.8 kDa

Gene Summary: This gene encodes an inwardly rectifying K⁺ channel which may be blocked by divalent cations. This protein is thought to be one of multiple inwardly rectifying channels which contribute to the cardiac inward rectifier current (IK1). The gene is located within the Smith-Magenis syndrome region on chromosome 17. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC207051



Western blot validation of overexpression lysate (Cat# [LY412138]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207051 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).