

Product datasheet for **RG213543**

Kir4.1 (KCNJ10) (NM_002241) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kir4.1 (KCNJ10) (NM_002241) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kir4.1
Synonyms:	BIRK-10; KCNJ13-PEN; KIR1.2; KIR4.1; SESAME
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG213543 representing NM_002241 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACGTCAGTTGCCAAGGTGTATTACAGTCAGACCACTCAGACAGAAAGCCGGCCCTAATGGGCCAG
GGATACGACGGCGGAGAGTCCTGACAAAAGATGGTCGAGCAACGTGAGAATGGAGCACATTGCCGACAA
GCGCTTCTCTACCTCAAGGACCTGTGGACAACCTTCATTGACATGCAGTGGCGCTACAAGCTTCTGCTC
TTCTCTGCGACCTTTCAGGCACATGGTTCCTCTTTGGCGTGGTGTGGTATCTGGTAGCTGTGGCACATG
GGGACCTGCTGGAGCTGGACCCCGGCCAACCACACCCCTGTGTGGTACAGGTGCACACACTCACTGG
AGCCTTCCCTTCTCCCTTGAATCCCAAACCACCATTTGGCTATGGCTTCCGCTACATCAGTGAGGAATGT
CCTACTGGCCATTGTGCTTCTTATTGCCAGCTGGTGTCTACCACCATCCTGGAAATCTTTCATCACAGGTA
CCTTCTGGCGAAGATTGCCCGGCCAAGAAGCGGGCTGAGACCATTCGTTTCAGCCAGCATGCAGTTGT
GGCCTCCACAATGGCAAGCCCTGCCTCATGATCCGAGTTGCCAATATGCCGAAAAGCCCTCATTGGC
TGCCAGGTGACAGGAAAAGTCTTCCAGACCCACCAACCAAGGAAGGGGAGAATCCGGCTCAACCAGG
TCAATGTGACTTTCCAAGTAGACACAGCCTCTGACAGCCCCTTCCTTATTCTACCCCTTACCTTCTATCA
TGTGGTAGATGAGACCAGTCCCTTGAAGATCTCCCTCTTCGAGTGGTGGTGGTACTTTGAGCTGGTG
CTGATCCTAAGTGGGACAGTGGAGTCCACCAGTGCCACCTGTGAGTGGCAGTTCCTACCTGCCAGAG
AGATCCTTTGGGGCTACGAGTTCACACCTGCCATCTCACTGTGAGCCAGTGGTAAATACATAGCTGACTT
TAGCCTTTTTGACCAAGTTGTGAAAGTGGCCTCTCCTAGTGGCCTCCGTGACAGCACTGTACGCTACGGA
GACCTGAAAAGCTCAAGTTGGAGGAGTCATTAAGGGAGCAAGCTGAGAAGGAGGGCAGTGCCCTTAGTG
TGCGCATCAGCAATGTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG213543 representing NM_002241
Red=Cloning site Green=Tags(s)

MTSVAKVYYSQTTQTESRPLMGPGRIRRRVLTkdGRSNVRMEHIADKRFLYLKDLWTTFLDMQWRYKLLL
 FSATFAGTWFLFGVVWYLVAVAHGDLELDPPANHTPCVVQVHTLTGAF LFSLESQTTIGYGFYI SEEC
 PLAIVLLIAQLVLTILEIFITGTFLAKIARPKKRAETIRFSQHAVVASHNGKPCLMIRVANMRKSL IIG
 CQVTGKLLQTHQKEGENIRLNQVNVTFQVDTASDSPFLILPLTFYHVVD ETSPLKDLPLRS GEGDFELV
 LILSGTVESTATCQVRTSYLPEEILWGYEFTPAISLSASGKYIADFLFDQVVKVASPSGLRDSTVRYG
 DPEKLEESLREQAEKGSALSVRISNV

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002241

ORF Size: 1137 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_002241.5](#)

RefSeq Size: 4515 bp

RefSeq ORF: 1140 bp

Locus ID: 3766

UniProt ID: [P78508](#)

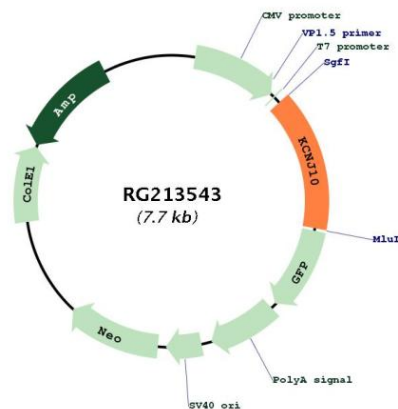
Cytogenetics: 1q23.2

Domains: IRK

Protein Families: Druggable Genome, Ion Channels: Potassium, Transmembrane

Gene Summary: This gene encodes a member of the inward rectifier-type potassium channel family, characterized by having a greater tendency to allow potassium to flow into, rather than out of, a cell. The encoded protein may form a heterodimer with another potassium channel protein and may be responsible for the potassium buffering action of glial cells in the brain. Mutations in this gene have been associated with seizure susceptibility of common idiopathic generalized epilepsy syndromes. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG213543