

Product datasheet for RC213543

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:	Myc-DDK
Symbol:	KCNJ10
Synonyms:	BIRK-10; KCNJ13-PEN; KIR1.2; KIR4.1; SESAME
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213543 representing NM_002241 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACGTCAGTTGCCAAGGTGTATTACAGTCAGACCACTCAGACAGAAAGCCGGCCCTAATGGGCCAG
GGATACGACGGCGGAGAGTCCTGACAAAAGATGGTCGAGCAACGTGAGAATGGAGCACATTGCCGACAA
GCGCTTCTCTACCTCAAGGACCTGTGGACAACCTTCATTGACATGCAGTGGCGCTACAAGCTTCTGCTC
TTCTCTGCGACCTTTCAGGCACATGGTTCCTCTTTGGCGTGGTGTGGTATCTGGTAGCTGTGGCACATG
GGGACCTGCTGGAGCTGGACCCCGGCCAACCACACCCCTGTGTGGTACAGGTGCACACACTCACTGG
AGCCTTCCCTTCTCCCTTGAATCCCAAACCACCATTTGGCTATGGCTTCCGCTACATCAGTGAGGAATGT
CCTACTGGCCATTGTGCTTCTTATTGCCAGCTGGTGTCTACCACCATCCTGGAAATCTTCATCACAGGTA
CCTTCTGGCGAAGATTGCCCGGCCAAGAAGCGGGCTGAGACCATTCGTTTCAGCCAGCATGCAGTTGT
GGCCTCCACAATGGCAAGCCCTGCCTCATGATCCGAGTTGCCAATATGCGCAAAAGCCCTCATTGGC
TGCCAGGTGACAGGAAAAGTCTTCCAGACCCACCAACCAAGGAAGGGGAGAATCCGGCTCAACCAGG
TCAATGTGACTTTCCAAGTAGACACAGCCTCTGACAGCCCTTCTTATTCTACCCCTTACCTTCTATCA
TGTGGTAGATGAGACCAGTCCCTTGAAGATCTCCCTCTTCGAGTGGTGGGAGGAGTCTTGGAGCTGGT
CTGATCCCTAAGTGGGACAGTGGAGTCCACCAGTGCCACCTGTGAGTGGCAGTCTCCTACCTGCCAGAG
AGATCCTTTGGGGCTACGAGTTCACACCTGCCATCTCACTGTGAGCCAGTGGTAAATACATAGCTGACTT
TAGCCTTTTTGACCAAGTTGTGAAAGTGGCCTCTCCTAGTGGCCTCCGTGACAGCACTGTACGCTACGGA
GACCTGAAAAGCTCAAGTTGGAGGAGTCATTAAGGGAGCAAGCTGAGAAGGAGGGCAGTGCCCTTAGTG
TGCGCATCAGCAATGTC

ACGCGTACGCGGCCGCTCGAGCAGAAAAGTCTCAGAAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC213543 representing NM_002241
 Red=Cloning site Green=Tags(s)

MTSVAKVYYSQTTQTESRPLMGPGRIRRRVLTkdGRSNVRMEHIADKRFlyLKDLWTTfIDMQWRYKLLL
 FSATFAGTWFLFGVVWYLVAVAHGDLLELDPPANHTPCVVQVHTLTGAFLFsLESQTTIGYGFryISEEC
 PLAIVLLIAQLVLTtILEIFITGTFLAKIARPKKRAETIRFSQHAVVASHNGKPCLMIRVANMRKSLlIG
 CQVTGKLLQTHQTKEGENIRLNQVNVTFQVDTASDSPFLILPLTFYHVVDETSPLKDLPLRSgEGDFELV
 LILSGTVESTATCQVRtSYLPEEILWGYEFTPAISLSASgKYIADfSLFDQVVKVAsPSGLRDSTVRYG
 DPEKlKLEESLREqAEKEGSALSVRISNV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

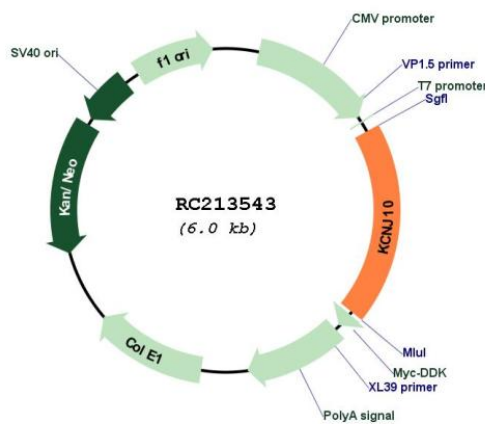
Chromatograms: https://cdn.origene.com/chromatograms/mk6825_a04.zip

Restriction Sites: SgfI-MluI

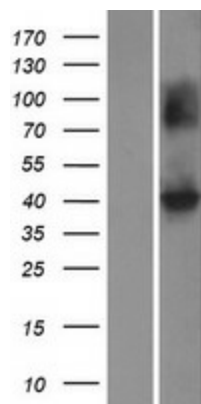
Cloning Scheme:



Plasmid Map:



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:	<ol style="list-style-type: none">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
MW:	42.3 kDa
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:

Western blot validation of overexpression lysate (Cat# [LY419446]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213543 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).