

Product datasheet for **RC213846**

KCNK4 (NM_033310) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNK4 (NM_033310) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNK4
Synonyms:	FHEIG; K2p4.1; TRAAK; TRAAK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC213846 representing NM_033310
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGGCCGGGGATGCCGGGGCTCTGCGGAGAGTGCAGTGACGACAGCTCCCCAGGAGCCCCCGCCC
 GGCCCTCCAGGCGGGCAGTGGAGCTGGCCGGCGCCTGGGCGGCCATGCGCAGCACCAGCTCCTGGC
 CCTGCTGGCGCTGGTCTTACTTTACTTGGTGTCTGGTGCCTGGTGTCCGGGCCCTGGAGCAGCCCCAC
 GAGCAGCAGGCCAGAGGGAGCTGGGGAGGTCCGAGAGAAGTTCCTGAGGGCCATCCGTGTGTGAGCG
 ACCAGGAGCTGGGCTCCTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGTGCAGCCAGAAACCAA
 CTCGACCAGCAACAGCAGCCACTCAGCCTGGGACCTGGGACGCGCTTCTTTTCTCAGGGACCATCATC
 ACCACCATCGGCTATGGCAATGTGGCCCTGCGCACAGATGCCGGGCGCCTCTTCTGCATCTTTATGCGC
 TGGTGGGGATTCCGCTGTTGGGATCCTACTGGCAGGGGTGGGGACCGCTGGGCTCCTCCTGCGCCA
 TGGCATCGGTACATTGAAGCCATCTTCTGAAGTGGCACGTGCCACCGAGCTAGTAAGAGTGTCTGCG
 GCGATGCTTTTCCTGCTGATCGGCTGCCTGCTCTTTGTCCTCACGCCAGTTCTGTCTGCTATATGG
 AGGACTGGAGCAAGCTGGAGGCCATCTACTTTGTATAGTGACGCTTACCACCGTGGGCTTTGGCGACTA
 TGTGGCCGGCGGGACCCAGGCAGGACTCCCCGGCCTATCAGCCGCTGGTGTGGTTCTGGATCCTGCTC
 GGCTGGCTTACTTCGCCTCAGTGTCTACCACCATCGGGAAGTGGCTGCGAGTAGTGTCCCGCCGCACTC
 GGGCAGAGATGGGCGGCCTCACGGCTCAGGCTGCCAGCTGGACTGGCACAGTGACAGCGCGCGTGACCCA
 GCGAGCCGGGCCCGCCCGCCCGCGGAGAGGAGCAGCCACTGCTGCCTCCACCGCCCTGTCCAGCG
 CAGCCGCTGGGACGGCCCGATCCCCTTCGCCCCCGAGAAGGCTCAGCCGCCTTCCCGCCACGGCT
 CGGCCCTGGATTATCCCAGCAGAACTTGCCTTCATCGACGAGTCTCGGATACGCAGAGCGAGCGCGG
 CTGCCCGCTGCCCGCGCGCCGAGAGGTGCGCCCGCCCAAATCCCCCAGGAAGCCCGTGCAGCCCGC
 GGCCCGGGCGTCCCGAGACAAAGCGTGCCTGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC213846 representing NM_033310
 Red=Cloning site Green=Tags(s)

MGAGDAGASAESA VTTAPQEPPARPLQAGSGAGPAPGRAMRSTLLALLALVLLYLVS GALVFRAL EQPH
 EQQAQRELGEVREKFLRAHPCVSDQELGLL I KEVADALGGGADPETNSTSNSSHS AWDLGSAFFFSGTII
 TTIGYGNVALRTDAGRLFCIFYALVGIPLFGILLAGVGDRLGSSLRHGIGHIEAIFLKWHVPPELVRVLS
 AMLFLLIGCLLFVLTPTFVFCYMEDWSKLEAIYFVIVLTTVGFVDYVAGADPRQDSPAYQPLVFWFILL
 GLAYFASVLTITIGNWLRVVSRRTRAEMGGLTAQAASWTGTVTARVTQRAGPAAPPPEKEQPLPPPPCPA
 QPLGRPRSPPEKAQPPSPPTASALDYSENLA FIDESDTSERGCPLPRAPRRRRPNPPRPVPRP
 GPRPRDKGVPV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6272_b08.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_033310

ORF Size: 1296 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 Size: 1702 bp

RefSeq ORF: 1182 bp

Locus ID: 50801

UniProt ID: [Q9NYG8](#)

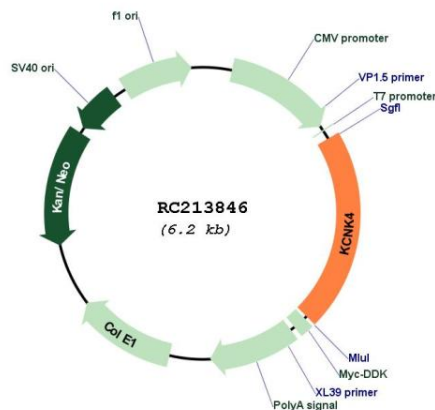
Cytogenetics: 11q13.1

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

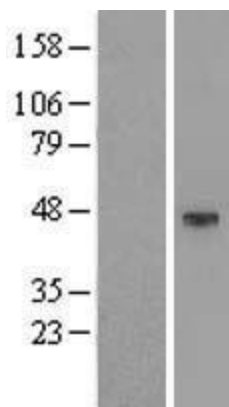
MW: 42.5 kDa

Gene Summary: This gene encodes a member of the TWIK-related arachidonic acid-stimulated two pore potassium channel subfamily. The encoded protein homodimerizes and functions as an outwardly rectifying channel. This channel is regulated by polyunsaturated fatty acids, temperature and mechanical deformation of the lipid membrane. This protein is expressed primarily in neural tissues and may be involved in regulating the noxious input threshold in dorsal root ganglia neurons. Alternate splicing results in multiple transcript variants. Naturally occurring read-through transcripts also exist between this gene and the downstream testis expressed 40 (TEX40) gene, as represented in GeneID: 106780802. [provided by RefSeq, Nov 2015]

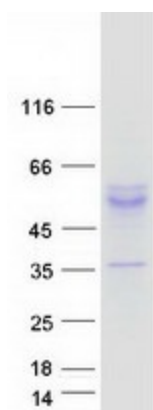
Product images:



Circular map for RC213846



Western blot validation of overexpression lysate (Cat# [LY409596]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213846 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KCNK4 protein (Cat# [TP313846]). The protein was produced from HEK293T cells transfected with KCNK4 cDNA clone (Cat# RC213846) using MegaTran 2.0 (Cat# [TT210002]).