

Product datasheet for **RG210434**

KCNN1 (NM_002248) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNN1 (NM_002248) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KCNN1
Synonyms:	hSK1; KCa2.1; SK1; SKCA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG210434 representing NM_002248
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAACAGCCACAGCTACAATGGCAGCGTGGGGCGCCGCTGGGCAGCGGCCGGCGCCCTGGGACGAG
 ACCCTCCGGACCCCTGAGGCCGGCCACCCCCACAACCCCGCACAGCCCGGCCCTCCAGGTGGTAGTGGC
 CAAGAGTGAGCCAGCCCGGCCCTCACCCGGCAGCCCCGGGGGCAGCCCAGGACCAGGACGATGACGAG
 GATGATGAGGAAGATGAGGCCGGCAGGCAGAGAGCCTCGGGGAAACCCTCAAATGTGGGCCACCGCTGG
 GCCACCGCGGGCGCTCTTCGAGAAGCGGAAGCGCCTCAGCGACTATGCCCTCATTTTCGGCATGTTTGG
 CATCGTCGTCATGGTGACGGAGACCAGCTGTCTGGGGGTGTACACCAAGGAGTCTCTGTACTCATT
 GCACTCAAATGCCTCATCAGCCTCTCCACGGCCATCCTGCTGGGTCTCGTTGTCTCTACCATGCCCGG
 AGATCCAGCTGTTTATGGTGGACAACGGGGCTGATGACTGGCGCATCGCCATGACCTGCGAGCGCGTGT
 CCTCATCTCGCTAGAGCTGGCAGTGTGCCATTACCCGGTGGCCGGCCACTACCGCTTACGTGGAGC
 GCGCGGCTGGCCTTACGTACGGCCCTCGGTGGCCGAGGCCAGCTGGACGTGCTGCTGTCCATCCCA
 TGTTCTGCGCCTTACCTGCTGGGCGGGTATGCTACTGCACAGCAAAATCTTACGGACGCCTCGAG
 CCGCAGCATCGGGGCCCTCAACAAGATCACCTTCAACACGCGCTTCGTCATGAAGACACTCATGACCATC
 TGCCCCGGCACCGTGTCTGCTGGTCTTACGATCTCCTCCTGGATCATCGCAGCCTGGACCGTGGCGGT
 GCGAGAGTACCACGACAAGCAGGAAGTGACCAGCAACTTCTGGGGCCATGTGGCTGATTTCCATCAC
 TTCTCTCCATTGGCTACGGCGCATGGTGCCACACCTACTGCGGGAAGGTGTGTGCTGCTCACT
 GGCATGTTGGAGCTGGCTGTACCGCGCTCGTGGTGGCTGTGGTGGCTCGGAAGCTGGAGCTCACAAG
 CTGAGAAGCAGCTGCACAACCTCATGATGGACTGACACTCAGCTCACCAGCGGTAATAAACCGCCGCTG
 CGTTCTCAGGGAGACGTGGCTCATCTACAAACATACCAGGCTGGTGAAGAAGCCAGACCAAGCCCGGTT
 CGGAAACACCAGCGTAAGTTCCTCCAAGCCATCCATCAGGCTCAGAAGCTCCGGAGTGTGAAGATCGAGC
 AAGGGAAGCTGAACGACCAGGCTAACACGCTTACCGACCTAGCCAAGACCCAGACCGTATGACGACCT
 TGTATCGGAGCTGCACGCTCAGCACGAGGAGCTGGAGGCCCGCTGGCCACCCTGGAAAGCCGCTTGGAT
 GCGCTGGTGCCTCTCTACAGGCCCTGCCTGGCCTCATCGCCCAAGCCATACGCCACCCCGCCTCCCC
 TGCTCCAGGCCCGCCCGGCCCAAGACCAGGCAGCCGGAGCTCCCCCTGCCGTGGACGCCGT
 GGCCCCCTCGGACTGCGGG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG210434 representing NM_002248
 Red=Cloning site Green=Tags(s)

MNSHSYNGSVGRPLGSGPGALGRDPPDPEAGHPQPSPGLQVVVAKSEPARPSPGSPRGQPQDDDE
 DDEEDEAGRQRASGKPSNVGHRLGHRRALFEKRKRLSDYALIFGMFGIVVMVTELELWGVYTKESLYS
 ALKCLISLSTAILLGLVVLVHAREIQLFMVDNGADDWRIAMTCERVFLISLELAVCAIHPVPGHYRFTW
 ARLAFTYAPSVAEADVLLSIPMFLRLYLLGRVLLHLSKIFTDASSRSIGALNKITFNTRFVMTLMTI
 CPGTVLLVFSISSWIIAAWTVRVCERYHDKQEVTSNFLGAMWLISITFLSIGYGMVPHTYCGKGVCLLT
 GIMGAGCTALVVAVVARKLELTKAEKHVHFMMDTQLTKRVKNAANVLRWTLIYKHTRLVKKPDQARV
 RKHQKFLQAIHQAKLRSVKIEQKLNQANTLTDLAKTQVMYDLVSELHAQHEEARLATLESRLD
 ALGASLQALPGLIAQAIRPPPPPLPPRPGPGPQDQAARSSPCRWTPVAPSDCG

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_002248

ORF Size: 1629 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_002248.4](#)

RefSeq Size: 2657 bp

RefSeq ORF: 1632 bp

Locus ID: 3780

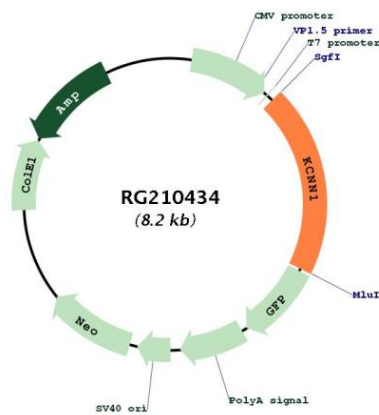
UniProt ID: [Q92952](#)

Cytogenetics: 19p13.11

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

Gene Summary: Action potentials in vertebrate neurons are followed by an afterhyperpolarization (AHP) that may persist for several seconds and may have profound consequences for the firing pattern of the neuron. Each component of the AHP is kinetically distinct and is mediated by different calcium-activated potassium channels. The protein encoded by this gene is activated before membrane hyperpolarization and is thought to regulate neuronal excitability by contributing to the slow component of synaptic AHP. The encoded protein is an integral membrane protein that forms a voltage-independent calcium-activated channel with three other calmodulin-binding subunits. This gene is a member of the KCNN family of potassium channel genes. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG210434