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Product datasheet for RG224792

KCNN2 (NM_170775) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNN2 (NM_170775) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KCNN2
Synonyms:	hSK2; KCa2.2; SK2; SKCA2; SKCa 2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG224792 representing NM_170775
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTGGTTGATATCAATAACTTTTCTCTCCATTGGTTATGGTGACATGGTACCTAACACATACTGTGGAA
AAGGAGTCTGCTTACTTACTGGAATTATGGGTGCTGGTTGCACAGCCCTGGTGGTAGCTGTAGTGGCAAG
GAAGCTAGAACTTACCAAAGCAGAAAAACACGTGCACAATTTCATGATGGATACTCAGCTGACTAAAAGA
GTAAAAAATGCAGCTGCCAATGTACTCAGGGAAACATGGCTAATTTACAAAAATACAAAGCTAGTGAAAA
AGATAGATCATGCAAAAGTAAGAAAACATCAACGAAAATTCCTGCAAGCTATTCATCAATTAAGAAGTGT
AAAAATGGAGCAGAGGAAACTGAATGACCAAGCAAACACTTTGGTGGACTTGGCAAAGACCCAGAACATC
ATGTATGATATGATTTCTGACTTAAACGAAAGGAGTGAAGACTTCGAGAAGAGGATTGTTACCCTGGAAA
CAAAACTAGAGACTTTGATTGGTAGCATCCACGCCCTCCCTGGGCTCATAAGCCAGACCATCAGGCAGCA
GCAGAGAGATTTCATTGAGGCTCAGATGGAGAGCTACGACAAGCACGTCACTTACAATGCTGAGCGGTCC
CGGTCCTCGTCCAGGAGGCGGCGGTCCTCTTCCACAGCACCACCAACTTCATCAGAGAGTAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

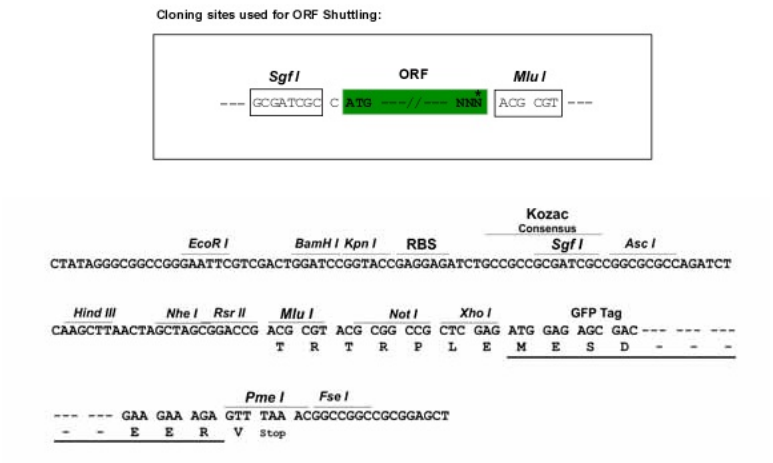
>RG224792 representing NM_170775
Red=Cloning site Green=Tags(s)

MWLISITFLSIGYGDMVPNTYCGKGVCLLTGIMGAGCTALVVAVVARKLELTKAEKHVHNFMMDTQLTKR
VKNAAANVLRETWLIYKNTKLVKKIDHAKVRKHQRKFLQAIHQLRSVKMEQRKLNDQANTLVDLAKTQNI
MYDMISDLNERSEDFEKRIVTLETKLETLIGSIHALPGLISQTIRQQQRDFIEAQMESYDKHVTYNAERS
RSSSRRRRSSSTAPPTSSESS

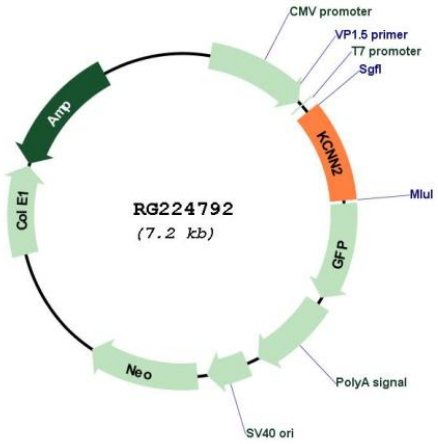
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_170775

ORF Size: 693 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_170775.3
RefSeq Size:	1457 bp
RefSeq ORF:	696 bp
Locus ID:	3781
UniProt ID:	Q9H2S1
Cytogenetics:	5q22.3
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. This gene is a member of the KCNN family of potassium channel genes. The encoded protein is an integral membrane protein that forms a voltage-independent calcium-activated channel with three other calmodulin-binding subunits. Alternate splicing of this gene results in multiple transcript variants. [provided by RefSeq, May 2013]