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Product datasheet for RC220023

KCNS1 (NM_002251) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNS1 (NM_002251) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNS1
Synonyms:	Kv9.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC220023 representing NM_002251
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTGATGCTGCTGGTCCGGGGAACACACTATGAGAACCTCCGGTCTAAAGTGGTGCTGCCAACACCCC
TAGGAGGGAGGAGCACTGAAACCTTTGTGAGCGAGTTCCCGGGCCCCGACACCGGGATCCGCTGGCGGCG
AAGCGACGAGGCGCTGCGCGTGAACGTGGGTGGCGTGCGGCGGCAGCTGAGCGCGCGCGCCCTGGCGCGC
TTCCCGGGCACGCGGCTGGGCCGCCTGCAGGCCGCGGCGTCGGAGGAGCAGGCGCGGCGCCTGTGCGACG
ACTACGACGAGGCGGCGCGCGAATTCTACTTCGACCGGCACCCGGGCTTCTTCCTGAGCCTGCTGCACTT
CTACCGCACTGGCCACCTGCACGTGCTCGACGAGCTGTGCGTCTTCGCCTTTGGCCAGGAGGCCGACTAC
TGGGGCCTAGGCGAGAACGCGCTTGCCGCGTGCTGCCGCGCGCGCTACCTGGAGAGGCGGCTGACCCAGC
CGCACGCCTGGGACGAGGACAGCGACACGCCGAGCAGCGTGGACCCGTGCCCCGACGAGATCTCCGACGT
GCAGCGAGAACTGGCGCGCTATGGCGCGGCGCGCTGTGGCCGCCTGCGCCGCCGCCTCTGGCTGACCATG
GAGAACCCGGGCTACTCGCTGCCGAGCAAGCTCTTCAGCTGCGTCTCCATCAGCGTGGTGCTCGCCTCCA
TCGCCGCCATGTGCATCCACAGCCTGCCCGAGTACCAGGCCCGCGAGGCGGCGGCCGCCGTGGCTGCGGT
GGCCGCGGGCCGCAGCCCGGAAGGCGTGCGCGACGACCCGGTGCTGCGACGCCTCGAGTACTTCTGCATC
GCCTGGTTCAGCTTCGAGGTGTCGTCGCGCCTCCTGCTGGCGCCCAGTACGCGCAACTTCTTCTGCCACC
CGCTCAACCTCATCGACATTGTGTCTGTGCTGCCCTTCTATCTCACGCTGCTGGCTGGTGTGGCACTGGG
CGACCAGGGCGGCAAGGAGTTCGGCCACCTGGGCAAGGTGGTGCAGGTGTTCCGCCTCATGCGCATCTTC
CGCGTACTCAAGTTGGCGCGCCATTCCACCGGGCTGCGCTCGCTGGGAGCCACGCTCAAGCACAGCTACC
GTGAGGTGGGCATCTTGCTGCTGTACCTGGCTGTGGGTGTGTCAGTGTTCTCTGGTGTGGCCTACACAGC
TGAAAAGGAGGAGGACGTGGGCTTTAACACCATCCCAGCCTGCTGGTGGTGGGGCACAGTGAGCATGACC
ACCGTGGGCTATGGGGATGTGGTGCCAGTGACGGTGGCTGGCAAGCTGGCAGCCTCAGGCTGCATCCTAG
GGGGCATCCTGGTGGTAGCACTCCCCATCACCATCATCTTCAACAAGTTCTCCCACTTCTACCGGCGCCA
GAAGGCTCTGGAGGCAGCCGTGCGCAACAGCAACCACCAAGAGTTTGAGGACTTGCTGAGCAGCATTGAT
GGGGTGTCGGAGGCATCTCTGGAGACATCCCGAGAAACCTCTCAGGAGGGACAGTCTGCAGATCTAGAGA
GCCAGGCCCCCAGTGAGCCTCCACACCCTCAGATGTAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220023 representing NM_002251
Red=Cloning site Green=Tags(s)

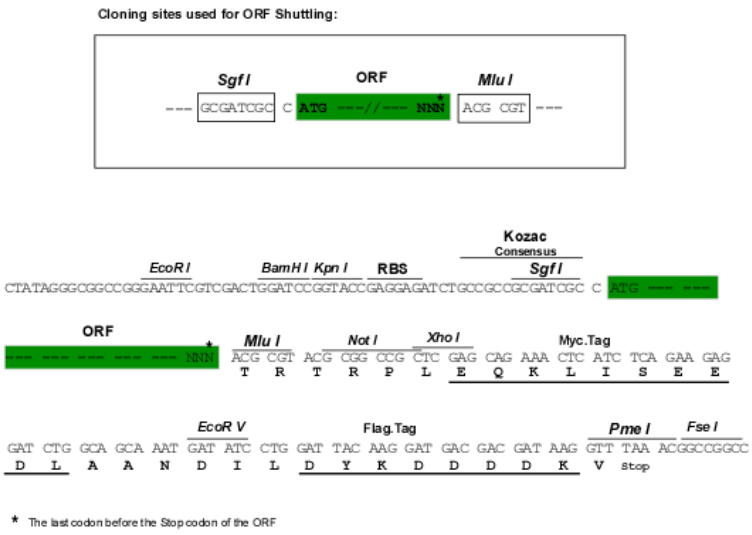
MLMLLVRGTHYENLRSKVVLPTPLGGRSTETFVSEFPGPDTGIRWRRSDEALRVNVGGVRRQLSARALAR
FPGTRLGRLQAAASEEQARRLCDDYDEAAREFYFDRHPGFFLSLLHFYRTGHLHVLDELCVFAFGQEADY
WGLGENALAACCRARYLERRLTQPHAWDEDSDTPSSVDPCPDEISDVQRELARYGAARCGRLRRRLWLTM
ENPGYSLPSKLFSCVSISVVLASIAAMCIHSLPEYQAREAAAAVAAVAAGRSPEGVRDDPVLRRLEYFCI
AWFSFEVSSRLLLAPSTRNFFCHPLNLIDIVSVLPFYLTLLAGVALGDQGGKEFGHLGKVVQVFRLMRIF
RVLKLARHSTGLRSLGATLKHSYREVGILLLYLAVGVSVFSGVAYTAEKEEDVGFNTIPACWWWGTVSMT
TVGYGDVVPVTVAGKLAASGCILGGILVVALPITIIFNKFSHFYRRQKALEAAVRNSNHQEFEDLLSSID
GVSEASLETSRETSQEGQSADLESQAPSEPPHPQMY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8007_g07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002251

ORF Size: 1578 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

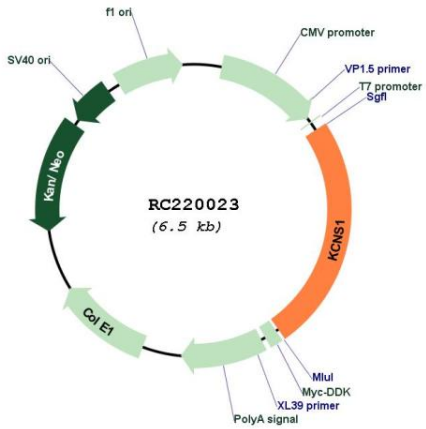
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_002251.5
RefSeq Size:	4556 bp
RefSeq ORF:	1581 bp
Locus ID:	3787
UniProt ID:	Q96KK3
Cytogenetics:	20q13.12
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
MW:	58.2 kDa
Gene Summary:	Voltage-gated potassium channels form the largest and most diversified class of ion channels and are present in both excitable and nonexcitable cells. Their main functions are associated with the regulation of the resting membrane potential and the control of the shape and frequency of action potentials. The alpha subunits are of 2 types: those that are functional by themselves and those that are electrically silent but capable of modulating the activity of specific functional alpha subunits. The protein encoded by this gene is not functional by itself but can form heteromultimers with member 1 and with member 2 (and possibly other members) of the Shab-related subfamily of potassium voltage-gated channel proteins. This gene belongs to the S subfamily of the potassium channel family. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC220023