

Product datasheet for **RC211543**

KCNN3 (NM_002249) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNN3 (NM_002249) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNN3
Synonyms:	hSK3; KCa2.3; SK3; SKCA3; ZLS3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC211543 representing NM_002249
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGACACTTCTGGGCACTTCCATGACTCGGGGTGGGGACTTGGATGAAGACCCCAAGTGCCCTGTCC
CATCCTCTGGGGATGAGCAGCAGCAGCAGCAGCAGCAACAGCAGCAGCAGCCACCACCGCCAGCGCC
ACCAGCAGCCCCCAGCAGCCCCCTGGGACCCTCGCTGCAGCCTCAGCCTCCGAGCTTCAGCAGCAGCAG
CAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCCACCGCATCCCCGTCTCAGCTCGCCC
AACTCCAGAGCCAGCCCGTCCACCCTGGCCTGCTGCACTCCTCTCCACCCTTTTCAGGGCCCCCTTC
GTCCAACCTCCACCGCCATCCTCCACCCTTCTCCAGGCAAGGCAGCCAGCTCAATCTCAATGACCACTTG
CTTGGCCACTCTCAAGTCCACAGCTACAAGTGGGCTGGCGGAGGCAGCCGGCACCAGCAGCCAGCC
CCCTGGTGCACCGCGGGACAGCAACCCCTTACGGAGATCGCCATGAGCTCTGCAAGTATAGCGGTGG
GGTCATGAAGCCCTCAGCCGCTCAGCGCCTCCCGGAGGAACCTCATCGAGGCCGAGACTGAGGGCCAA
CCCTCCAGCTTTTCAGCCCTAGCAACCCCGGAGATCGTCATCTCTCCCGGAGGACAACCATGCCCC
ACCAGACCCTGTCTCATACCCTAATGCCACCCACAACCACCAGCATGCCGGCACCCAGCCAGCAGCAC
CACCTTCCCCAAAGCCAACAAGCGGAAAAACAAAACATTGGCTATAAGCTGGGACACAGGAGGGCCCTG
TTTGAAAAGAGAAAGCGACTGAGTGACTATGCTCTGATTTTTGGGATGTTTGGAAATTGTTGTTATGGTGA
TAGAGACCGAGCTCTCTTGGGGTTTGTACTCAAAGGACTCCATGTTTTCGTTGGCCCTGAAATGCCTTAT
CAGTCTGTCCACCATCATCTTTTGGGCTTGATCATCGCTACCACACAGTGAAGTCCAGCTCTTCGTG
ATCGACAACGGCGCGGATGACTGGCGGATAGCCATGACCTACGAGCGCATCTCTACATCAGCCTGGAGA
TGCTGGTGTGCGCCATCCACCCCTTCTGGCGAGTACAAGTTCTTCTGGACGGCAGCCCTGGCCTTCTC
CTACACACCCTCCCGGGCGGAGGCGGATGTGGACATCATCTGTCTATCCCCATGTTCTGCGCCTGTAC
CTGATCGCCCGAGTCATGCTGCTGCACAGCAAGCTCTTACCAGTGCCTCGTCCCGCAGCATCGGGGCC
TCAACAAGATCAACTTCAACACCCTTTGTGTCATGAAGACGCTCATGACCATCTGCCCTGGCACTGTGCT
GCTCGTGTTCAGCATCTCTGTGGATCATTGCTGCCTGGACCGTCCGTGTCTGTGAAAGGTACCATGAC
CAGCAGGACGTAAGTAACTTTCTGGGTGCCATGTGGCTCATCTCCATCACATTCTTTCCATTGGTT
ATGGGGACATGGTGCCCCACACATACTGTGGAAAGGTGTCTGTCTCCTCACTGGCATCATGGGTGCAGG
CTGCACCTGCCCTTGTGGTGGCCGTGGTGGCCCGAAAGCTGGAACCTACCAAAGCGGAGAAGCACGTTT
AACTTCATGATGGACACTCAGCTACCAAGCGGATCAAGAATGCTGCAGCCAATGTCCTTCGGGAAACAT
GGTTAATCTATAAACACACAAAGCTGCTAAAGAAGATTGACCATGCCAAAGTGAAGAAACACCAGAGGAA
GTTCTCCAAGCTATCCACCAGTTGAGGAGCGTCAAGATGGAACAGAGGAAGCTGAGTGACCAAGCCAAC
ACTCTGGTGGACCTTTCCAAGATGCAGAATGTCATGATGACTTAATCACAGAACTCAATGACCGGAGCG
AAGACCTGGAGAAGCAGATTGGCAGCCTGGAGTCGAAGCTGGAGCATCTCACCGCCAGCTTCAACTCCCT
GCCGCTGCTCATCGCCGACACCTGCGCCAGCAGCAGCAGCAGCTCCTGTCTGCCATCATCGAGGCCCGG
GGTGTACGCGTGGCAGTGGGCACCACCCACACCCCAATCTCCGATAGCCCCATTGGGGTCACTCCACCT
CCTTCCGACCCCGTACACAAGTTCAAGCAGTTGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC211543 representing NM_002249
Red=Cloning site Green=Tags(s)

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MDTSGHFHDSGVGDLDEDPKCPCPSSGDEQQQQQQQQQQPPPPAPPAAPQQPLGPSLQPQPQLQQQQ
QQQQQQQQQQQQPPHPLSQLAQLQSQPVHPGLLHSSPTAFRAPPSSNSTAILHPSSRQGSQNLNDHL
LGHSPSSSTATSGPGGSRHRQASPLVHRRDSNPFTEIAMSSCKYSGGVMKPLSRLSASRRNLIEAETEGQ
PLQLFSPSNPPEIIVISSREDNHAHQTLHHPNATHNHQHAGTTASSTTFPKANKRKNQNIQYKLGHRRAL
FEKRRLSDYALIFGMFIVVMVIEITELSWGLYSKDSMFLALKCLISLSTIILLGLIIAYHTREVQLFV
IDNGADDWRIAMTYERILYISLEMLVCAIHPGPEYKFFWTARLAFSYTPSRAEADVDIILSIPMFLRLY
LIARVMLLHSKLFTDASSRSIGALNKINFNTRFVMKTLMTICPGTVLLVFSISLWIIAAWTVRCERYHD
QQDVTSNFLGAMWLISITFLSIGYDMVPHTYCGKGVCLLTGIMGAGCTALVVAVVARKLELTKAEKHVH
NFMMDTQLTKRIKNAANVLRWLIYKHTKLLKKIDHAKVRKHQRKFLQAIHQLRVSKMEQRKLSQAN
TLVDLSKMQNVMYDLITELNDRSEDLEKQIGSLESKLEHLTASFNSLPLLIADTLRQQQQQLLSAIEAR
GVSVAVGTTHTPISDSPIGVSSTSFPTPYTSSSSC
    
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2583_f06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_002249

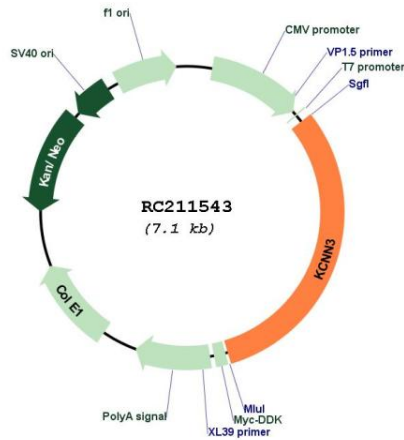
ORF Size: 2205 bp

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](#)

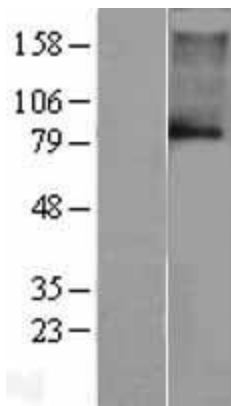
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_002249.6
RefSeq Size:	3075 bp
RefSeq ORF:	2196 bp
Locus ID:	3782
UniProt ID:	Q9UGI6
Cytogenetics:	1q21.3
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
MW:	81.2 kDa
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. This gene belongs to the KCNN family of potassium channels. It encodes an integral membrane protein that forms a voltage-independent calcium-activated channel, which is thought to regulate neuronal excitability by contributing to the slow component of synaptic AHP. This gene contains two CAG repeat regions in the coding sequence. It was thought that expansion of one or both of these repeats could lead to an increased susceptibility to schizophrenia or bipolar disorder, but studies indicate that this is probably not the case. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2011]

Product images:



Circular map for RC211543



Western blot validation of overexpression lysate (Cat# [LY400817]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211543 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).