

## Product datasheet for **SC310407**

### KCNN3 (NM\_170782) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KCNN3 (NM_170782) Human Untagged Clone
Tag:	Tag Free
Symbol:	KCNN3
Synonyms:	hSK3; KCa2.3; SK3; SKCA3; ZLS3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC310407 representing NM_170782. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG  
GATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**  
ATGGAGAGACCTATAAGGACTCCATGTTTTCTGGCCCTGAAATGCCTTATCAGTCTGTCCACCATC  
ATCCTTTTGGGCTTGATCATCGCTACACACAGTGAAGTCCAGCTCTTCGTGATCGACAATGGCGCG  
GATGACTGGCGGATAGCCATGACCTACGAGCGCATCCTGTACATCAGCCTGGAGATGCTGGTGTGCGCC  
ATCCACCCCATTCCTGGCGAGTACAAGTTCTTCTGGACGGCACGCCTGGCCTTCTCTACACACCTCC  
CGGGCGGAGGCCGATGTGGACATCATCTGTCTATCCCATGTTCTGCGCCTGTACCTGATCGCCCGA  
GTCATGCTGCTGCACAGCAAGCTCTTACCGATGCCTCGTCCCGCAGCATCGGGGCCCTCAACAAGATC  
AACTTCAACACCCGCTTTGTGATGAAGACGCTCATGACCATCTGCCCTGGCACTGTGCTGCTCGTGTTC  
AGCATCTCTCTGTGGATCATTGTGCTGACCTGGACCGTCCGTGTCTGTGAAAGGTACCATGACCAGCAGGAC  
GTAAGTAGTAACCTTTCTGGGTGCCATGTGGCTCATCTCCATCACATTCTTTCCATTGGTTATGGGGAC  
ATGGTGCCCCACACATACTGTGGGAAAGGTGTCTGTCTCCTCACTGGCATCATGGGTGCAGGCTGCACT  
GCCCTTGTGGTGGCCGTGGTGGCCGAAAGCTGGAACACCAAGCGGAGAAGCACGTTTCATAACTTC  
ATGATGGACACTCAGCTACCAAGCGGATCAAGAATGCTGCAGCCAATGTCCTTCGGGAAACATGGTTA  
ATCTATAAACACACAAAGCTGCTAAAGAAGATTGACCATGCCAAAGTGAAGAAACACAGAGGAAGTTC  
CTCCAAGCTATCCACAGTTGAGGAGCGTCAAGATGGAACAGAGGAAGCTGAGTGACCAAGCCAACACT  
CTGGTGGACCTTTCCAAGATGCAGAATGTGATGTATGACTTAATCACAGAACTCAATGACCGGAGCGAA  
GACCTGGAGAAGCAGATTGGCAGCCTGGAGTCAAGCTGGAGCATCTCACCGCCAGCTTCAACTCCCTG  
CCGCTGCTCATCGCCGACACCCTGCGCCAGCAGCAGCAGCTCCTGTCTGCCATCATCGAGGCCCGG  
GGTGTGACGCTGGCAGTGGGCACCCACACCCCAATCTCCGATAGCCCCATTGGGGTCAGCTCCACC  
TCCTTCCCGACCCCGTACACAAGTTCAAGCAGTTGCT**AA**  
**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT  
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC



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<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_170782
<b>Insert Size:</b>	1281 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_170782.2</a></u>
<b>RefSeq Size:</b>	11956 bp
<b>RefSeq ORF:</b>	1281 bp
<b>Locus ID:</b>	3782
<b>UniProt ID:</b>	<u><a href="#">Q9UGI6</a></u>
<b>Cytogenetics:</b>	1q21.3
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Potassium, Transmembrane
<b>MW:</b>	48.1 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]

Transcript Variant: This variant (2) contains an alternate 5' terminal exon compared to variant 1, resulting in translation initiation from a different start codon, and a shorter isoform (b) with a distinct N-terminus compared to isoform a. This isoform lacks the two CAG repeat regions. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.