

## Product datasheet for **SC109363**

### **Kv3.2 (KCNC2) (NM\_139137) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kv3.2 (KCNC2) (NM_139137) Human Untagged Clone
Tag:	Tag Free
Symbol:	Kv3.2
Synonyms:	KV3.2
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_139137, the custom clone sequence may differ by one or more nucleotides

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ATGGGCAAGATCGAGAACAACGAGAGGGTATCCTCAATGTGCGGGGCACCCGGCACGAAACCTACCGCA
GACCCCTCAAGACCCTGCCTGGAACACGCCTGGCCCTTCTTGCCTCCTCGAGCCCCAGGCGACTGCTT
GACCACGGCGGGGACAAGCTGCAGCCGTGCGCCCTCCACTGTGCGCCGCGCCGAGAGCGCCCCGCTG
TCCCCCGGGCCAGGCGGCTGCTTCGAGGGCGCGCGGCAACTGCAGTTCGCGCGCGGAGGGCCAGCG
ACCATCCCGGTGGCGGCCGAGTTCCTTCTCGACCGGCACCCGGGCGTCTTCGCTATGTGCTCAATTA
CTACCGCACCGGCAAGCTGCACTGCCCCGAGACGTGTGCGGGCCGCTCTTCGAGGAGGAGCTGGCCTTC
TGGGGCATCGACGAGACCACGTGGAGCCCTGCTGCTGGATGACCTACCGGCAGCACCCGCGACGCCGAGG
AGGCGCTGGACATCTTCGAGACCCCGACCTATTGGCGGCGACCCGGCGACGACGAGGACCTGGCGGC
CAAGAGGCTGGGCATCGAGGACGCGCGGGGCTCGGGGGCCCCGACGGCAAACTGGCCGCTGGAGGAGG
CTGCAGCCCCGCATGTGGGCCCTCTCGAAGACCCTACTCGTCCAGAGCCGCCAGGTTTATTGCTTTTG
CTTCTTTATTCTTCATCCTGGTTTCAATTAACAATTTTTGCCTGGAACACATGAAGCTTCAATATTGT
TAAAAACAAGACAGAACCAGTCATCAATGGCACAAAGTGTGTTCTACAGTATGAAATTGAAACGGATCCT
GCCTTGACGTATGTAGAAGGAGTGTGTGGTGTGGTTACTTTTGAATTTTAGTCCGTATTGTTTTT
CACCCAATAAACTTGAATTCATCAAAAATCTCTTGAATATCATTGACTTTGTGGCCATCCTACCTTTCTA
CTTAGAGGTGGGACTCAGTGGGCTGTATCCAAAGCTGCTAAAGATGTGCTTGGCTTCTCAGGGTGGTA
AGGTTTGTGAGGATCCTGAGAATTTTCAAGCTCACCCGCCATTTTGTAGGCTCGAGGGTGCCTGGACATA
CTCTTCGAGCTAGTACTAATGAATTTTGTCTGTGATAATTTTCTGGCTCTAGGAGTTTGTATTTGTC
TACCATGATCTACTATGCCGAGAGAGTGGGAGCTCAACCTAACGACCCTCAGCTAGTGACACACACAG
TTCAAAAACATCCCATTTGGGTTCTGGTGGGCTGTAGTACCATGACTACCCTGGGTTATGGGGATGT
ACCCCCAAACATGGTCAGGCATGCTGGTGGGAGCCCTGTGTGCTTGGCTGGAGTGTGACAATAGCCAT
GCCAGTGCCTGTATTGTCAATAATTTTGAATGTACTACTCCTTGGCAATGGCAAGCAGAAACTTCCA
AGGAAAAGAAAGAAGCACATCCCTCCTGCTCCTCAGGCAAGCTCACCTACTTTTTGCAAGACAGAATTAA
ATATGGCCTGCAATAGTACACAGAGTGACACATGTCTGGGCAAAGACAATCGACTTCTGGAACATAACAG
ATCAGTGTATCAGGTGACGACAGTACAGGAAGTGAAGCCGCACTATCACCCCGAAAAGGCTCCCCATC
AGACGCTAGTACCAGAGACAAAACAGAAGAGGGGAAACATGTTTCTACTGACGACAGGTGATTACA
CGTGTGCTTCTGATGGAGGGATCAGGAAAGGATATGAAAAATCCCGAAGCTTAAACAACATAGCGGGCTT
GGCAGGCAATGCTCTGAGGCTCTCTCCAGTAACATCACCTACAACCTCTCCTTGTCTCTGAGGCGCTCT
CGATCTCCCATCCCATCTATCTGTAA
    
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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_139137 unedited

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CTATAGGGCGGCCGCGAATTCGCACGAGGCTCCCCCTAGTCATGTCTGAGTCACAGAGAT
GGGCAAGATCGAGAACAACGAGAGGGTATCCTCAATGTGCGGGGCACCCGGCACGAAAC
CTACCGCAGCACCTCAAGACCCTGCCTGGAACACGCCTGGCCCTTCTTGCCTCCTCCGA
GCCCCAGGCGACTGCTTGACCACGGCGGGGACAAGCTGCAGCCGTGCGCCCTCCACT
GTGCGCGCGCCGAGAGCGCCCCGCTGTCCCCGGGCCAGGCGGCTGCTTCGAGGGCGG
CGCGGGCAACTGCAGTTCGCGCGCGGAGGGCCAGCGACCATCCCGGTGGCGGCCGCGA
GTTCTTCTTCGACCGGCACCCGGGCGTCTTCGCTATGTGCTCAATTAACCGCACCGG
CAAGCTGCACTGCCCCGAGACGTGTGCGGGCCGCTCTTCGAGGAGGAGCTGGCCTTCTG
GGGCATCGACGAGACCGACGTGGAGCCCTGCTGCTGGATGACCTACCGGCAGCACCGCA
CGCCGAGGAGGCGCTGGACATCTTCGAGACCCCGACCTATTGGCGGCGACCCGGCGA
CGACGAGGACCTGGCGGCAAGAGGCTGGCATCGAGCGCCGGGCGGCTTCNNGGGGGCCC
CCGACGGCAAATCTGGGCGCTGGAGGGAAGCTGCACCCCGCATGTGGGGCCCTTTTTGAA
AACCTACTGGTCCAAGCCGCCAGGTTATAGGGTTTGGCTTCTTTATTCTTATCCCGG
GTTCAATCCAATTTTTTCCCGAAAACCTGAAGCTTAAATTTGGTAAAACAAGAAGAC
CAGTCTCATGGCCAAGGGTGGTCTACGTTGAATGAAACGGACTGCCTGACATGA
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_139137 unedited GGCCAGGAGAGGCACTGGGGAGGGGTCACAGGGATGCCACCCGGGATCTGTTCAGGAAAC AGCTATGACCCGCGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTAA GAGTCTAGAACCAAGCAGCAATTTCTGGCTAAACAATGCAAGCCTGGCTGGCAGTTACCT TTCTCTCATGTTTTGTGCCTTCCCAAGTCATTAAGTAAGAGATCTGGCCTCGGCTTGCG TGTAACCAAGTAATGACAACCTCTTGCAGTTATCTGTGTGCAACAACCAGAGACATTCA GAACTCCAATACAGCATTTTTGAAGAAAAGTAAATCAATCAAGAAATTAACATTTTAA ACATATATTTCTTTCAAATAATAAGAAAAAATGTCAAGGAGAAAAGTCCCTCCCTGCC CCACAATTCAACATGCAGAACAGTCGACCAATGCTTTCATATCAGCAGGATGGTTCGATG CAAGTACACATATCCTGAGCTATCCACAGTCCCCGAACCTGCAACATTGCTTTCAGGTG ATAGAGACAAGATGGTCCATGCAATGAGCTGACACAAGTCATGTCGTGTGCAATCAAGA TAGGATCCAGACATCTTCAGAATGGTTTACAGTCACAAGAAATAAAGTTCCAATGAAGT GGTTGGCATTGGGAAGCACACTGTTTTAAATATATCTCCCTGAAGGTATGTTTATATATT AGTGCCTGGTCAATATCTGACACTAT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_139137
<b>Insert Size:</b>	3300 bp
<b>OTI Disclaimer:</b>	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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a>
<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>	<a href="#">NM_139137.2</a> , <a href="#">NP_631875.1</a>
<b>RefSeq Size:</b>	5512 bp
<b>RefSeq ORF:</b>	1917 bp
<b>Locus ID:</b>	3747

UniProt ID: [Q96PR1](#)

Cytogenetics: 12q21.1

Domains: BTB, K\_tetra, ion\_trans

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

**Gene Summary:** The Shaker gene family of Drosophila encodes components of voltage-gated potassium channels and is comprised of four subfamilies. Based on sequence similarity, this gene is similar to one of these subfamilies, namely the Shaw subfamily. The protein encoded by this gene belongs to the delayed rectifier class of channel proteins and is an integral membrane protein that mediates the voltage-dependent potassium ion permeability of excitable membranes. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2012]  
Transcript Variant: This variant (2) encodes the longest isoform (KV3.2b). 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.