

## Product datasheet for **SC306737**

### KCNE2 (NM\_172201) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** KCNE2 (NM\_172201) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** KCNE2  
**Synonyms:** ATFB4; LQT5; LQT6; MIRP1  
**Mammalian Cell Selection:** None  
**Vector:** pCMV6-XL5  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_172201 edited  
 GCAGGAGGGAAGCATGTCTACTTTATCCAATTTACACAGACGCTGGAAGACGTCTTCCG  
 AAGGATTTTATTACTTATATGGACAATTGGCGCCAGAACAACAGCTGAGCAAGAGGC  
 CCTCCAAGCCAAAGTTGATGCTGAGAACTTCTACTATGTCATCCTGTACCTCATGGTGAT  
 GATTGGAATGTTCTTTTCATCATCGTGGCCATCCTGGTGAGCACTGTGAAATCCAAGAG  
 ACGGGAACACTCCAATGACCCCTACCACAGTACATTGTAGAGGACTGGCAGGAAAAGTA  
 CAAGAGCCAAATCTTGAATCTAGAAGAATCGAAGGCCACCATCCATGAGAACATTGGTGC  
 GGCTGGGTTCAAATGTCCCCCTGATAAGGGAGAAAGGCACCAAGC

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_172201 unedited  
 GGTCAAATTTGTAACGACTCACTATAGGGCGGCCGGAATCGCCCTTGCAGGAGGGAAG  
 CATGTCTACTTTATCCAATTTACACAGACGCTGGAAGACGTCTTCCGAAGGATTTTAT  
 TACTTATATGGACAATTGGCGCCAGAACAACAGCTGAGCAAGAGGCCCTCCAAGCCAA  
 AGTTGATGCTGAGAACTTCTACTATGTCATCCTGTACCTCATGGTGATGATTGGAATGTT  
 CTCTTTCATCATCGTGGCCATCCTGGTGAGCACTGTGAAATCCAAGAGACGGGAACACTC  
 CAATGACCCCTACCACAGTACATTGTAGAGGACTGGCAGGAAAAGTACAAGAGCCAAAT  
 CTTGAATCTAGAAGAATCGAAGGCCACCATCCATGAGAACATTGGTGGGCTGGGTTCAA  
 AATGTCCCCTGATAAGGGAGAAAGGCACCAAGCAAGGGCGAATTCGCCCTTGCAGGAGG  
 GAAGCATGTCTACTTTATCCAATTTACACAGACGCTGGAAGACGTCTTCCGAAGGATTT  
 TTATTACTTATATGGACAATTGGCGCCAGAACAACAGCTGAGCAAGAGGCCCTCCAAG  
 CCAAAGTTGATGCTGAGAACTTCTACTATGTCATCCTGTACCTCATGGTGATGATTGGGA  
 TGTTCTCTTTTCATCATCGTGGCCATCCTGGTGAGCACTGTGAAAATCCAGAGACGGGGAA  
 CACTCCATGACCCCTACACAGTACATTGTAGAGGACTGGCAGAAAAGTACAAGACCAAA  
 TCTTGATCTAGAAGATCGAAGGCCACATCCATGGAGACATTGTGGGCTGGGTTCAAATG  
 TCCCCCTGGTAAGGAGAAAGCACCAACCAAGGGCGATTTCGATCTGTACCGATTT



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<b>3' Read Nucleotide Sequence:</b>	>Forward primer walk for NM_172201 unedited GGTCAAATTTGTAAACGACTCACTATAGGGCGGCCGGAATCGCCCTTGCAGGAGGGAAG CATGTCTACTTTATCCAATTTACACAGACGCTGGAAGACGTCTTCCGAAGGATTTTAT TACTTATATGGACAATTGGCGCCAGAACACAACAGCTGAGCAAGAGGCCCTCCAAGCCAA AGTTGATGCTGAGAACTTCTACTATGTCATCCTGTACCTCATGGTGATGATTGGAATGTT CTCTTTTCATCATCGTGGCCATCCTGGTGAGCACTGTGAAATCCAAGAGACGGGAACACTC CAATGACCCCTACCACCAGTACATTGTAGAGGACTGGCAGGAAAAGTACAAGAGCCAAAT CTTGAATCTAGAAGAATCGAAGGCCACCATCCATGAGAACATTGGTGCGGCTGGGTTCAA AATGTCCCCCTGATAAGGGAGAAAAGGCACCAAGCAAGGGCGAATTCGCCCTTGCAGGAGG GAAGCATGTCTACTTTATCCAATTTACACAGACGCTGGAAGACGTCTTCCGAAGGATTT TTATTACTTATATGGACAATTGGCGCCAGAACACAACAGCTGAGCAAGAGGCCCTCCAAG CCAAAGTTGATGCTGAGAACTTCTACTATGTCATCCTGTACCTCATGGTGATGATTGGGA TGTTCTCTTTTCATCATCGTGGCCATCCTGGTGAGCACTGTGAAATCCAGAGACGGGGAA CACTCCATGACCCTACACCAGTACATTGTAGAGGACTGGCAGAAAAGTACAAGACAAA TCTTGATCTAGAAGATCGAAGGCCACATCCATGGAGACATTGTGCGGCTGGGGTCAAATG TCCCCCTGGTAAGGAGAAAAGCACCAACCAGGGCGATTTCGATCTGTACCGATTT
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_172201
<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>	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
<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>NM_172201.1, NP_751951.1</u>
<b>RefSeq Size:</b>	809 bp
<b>RefSeq ORF:</b>	372 bp
<b>Locus ID:</b>	9992
<b>UniProt ID:</b>	<u>Q9Y6J6</u>
<b>Cytogenetics:</b>	21q22.11
<b>Protein Families:</b>	Druggable Genome, Transmembrane

**Gene Summary:**

Voltage-gated potassium (Kv) channels represent the most complex class of voltage-gated ion channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. This gene encodes a member of the potassium channel, voltage-gated, isk-related subfamily. This member is a small integral membrane subunit that assembles with the KCNH2 gene product, a pore-forming protein, to alter its function. This gene is expressed in heart and muscle and the gene mutations are associated with cardiac arrhythmia. [provided by RefSeq, Jul 2008]