

## Product datasheet for **SC303523**

### **KCNQ4 (NM\_004700) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KCNQ4 (NM_004700) Human Untagged Clone
Tag:	Tag Free
Symbol:	KCNQ4
Synonyms:	DFNA2; DFNA2A; KV7.4
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_004700 edited  
 ATGGCCGAGGCCCGCCCGCCGCTCGGCCTGGGTCCCCGCCCGGGGACGCCCCCGC  
 GCGGAGCTAGTGGCGCTCACGGCCGTGCAGAGCGAACAGGGCGAGGCGGGGCGGGCGGC  
 TCCCCGCGCCGCTCGGCCTCCTGGGCAGCCCCCTGCCGCCGGGCGCGCCCTCCCTGGG  
 CCGGGCTCCGGCTCGGCCTCCGCTGCGCCAGCGCTCCTCGGCCGCGCACAAAGCGCTAC  
 CGCCGCTGCAGAACTGGGTCTACAACGTGCTGGAGCGCCCCGCGGCTGGGCTTCGTC  
 TACCAGTCTTCATATTTTTGCTGGTCTTCAGCTGCCTGGTGTCTGTGCTGCCACT  
 ATCCAGGAGCACAGAACTTGCCAACGAGTGTCTCCTCATCTTGAATTCTGTATGATC  
 GTGGTTTTCGGCTTGAGTACATCGTCCGGTCTGGTCCGCCGGATGCTGCTGCCGCTAC  
 CGAGGATGGCAGGGTCGCTTCCGCTTTGCCAGAAAGCCCTTCTGTGTCATCGACTTCATC  
 GTGTTCTGTGGCTCGGTGGCCGTATCGCCGCGGGTACCCAGGGCAACATCTTCGCCACG  
 TCCGCGCTGCGCAGCATGCGCTTCTGCAGATCCTGCGCATGGTGCATGGACCGCCG  
 GGGGCGACCTGGAAGCTGCTGGGCTCAGTGGTCTACGCGCATAGCAAGGAGCTGATCACC  
 GCCTGGTACATCGGGTCTGCTGCTCATCTTCGCTCCTTCTGGTCTACCTGGCTGAG  
 AAGGACGCCAACTCCGACTTCTCCTCCTACGCCACTCGTCTGGTGGGGACGATTACA  
 TTGACAACCATCGGCTATGGTGACAAGACCCGACACATGGCTGGGAGGGTCCGCTGGCT  
 GCTGGCTTCGCTTACTGGGCATCTTTCTTTGCCCTGCCTGCCGCGATCCTAGGCTCC  
 GGCTTTGCCCTGAAGTCCAGGAGCAGCACCGGCGAGAAGCACTTCGAGAAGCGGAGGATG  
 CCGGCAGCCAACCTCATCCAGGCTGCCTGGCGCTGTACTCCACCGATATGAGCCGGGCC  
 TACCTGACAGCCACCTGGTACTACTATGACAGTATCCTCCCATCCTTCAGAGAGCTGGCC  
 CTCTTGTGTTGAGCAGTGCAACGGGCCGCAATGGGGGCTACGGCCCTGGAGGTGCGG  
 CGGGCGCCGGTACCCGACGGAGCACCTCCCGTTACCCGCCGTTGCCACCTGCCACCGG  
 CCGGGCAGCACCTCCTTCTGCCCTGGGAAAGCAGCCGGATGGGCATCAAAGACCGCATC  
 CGCATGGGCGAGCTCCAGCGGGGACGGGTCCTTCCAAGCAGCATCTGGCACCTCCAACA  
 ATGCCACCTCCCAAGCAGCAGCAGGTGGGTGAGGCCACCAGCCCAACCAAGGTGCAA  
 AAGAGCTGGAGCTTAATGACCGCACCCGCTTCCGGGCATCTCTGAGACTCAAACCCCGC  
 ACCTCTGCTGAGGATGCCCCCTCAGAGGAAGTAGCAGAGGAGAAGAGCTACCAAGTGTGAG  
 CTCACGGTGGACGACATCATGCCTGCTGTGAAGACAGTATCCGCTCCATCAGGATTCTC  
 AAGTTCCTGGTGGCCAAAAGGAAATTCAAGGAGACTGCGACCGTACGACGTGAAGGAC  
 GTCATTGAGCAGTACTCAGCAGGCCACCTGGACATGCTGGGCCGGATCAAGAGCCTGCAA  
 ACTCGGTTGGACAAATTGTGGGTGGGGGCCCGGGGACAGGAAGGCCCGGGAGAAGGGC  
 GACAAGGGGCCCTCCGACGCGGAGGTGGTGGATGAAATCAGCATGATGGGACGCGTGGTC  
 AAGGTGGAGAAGCAGGTGCAGTCCATCGAGCACAAGCTGGACCTGCTGTTGGGCTTCTAT  
 TCGCGCTGCCTGCGCTCTGGCACCTCGGCCAGCCTGGGCGCCGTGCAAGTGCCGCTGTTC  
 GACCCCGACATCACCTCCGACTACCACAGCCCTGTGGACCACGAGGACATCTCCGTCTCC  
 GCACAGACGCTCAGCATCTCCGCTCGGTGACACCAACATGGACTGA

- Restriction Sites:** Please inquire
- ACCN:** NM\_004700
- Insert Size:** 2100 bp
- OTI Disclaimer:** 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).
- OTI Annotation:** The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
- 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).

<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_004700.2</a> , <a href="#">NP_004691.2</a>
<b>RefSeq Size:</b>	2335 bp
<b>RefSeq ORF:</b>	2088 bp
<b>Locus ID:</b>	9132
<b>UniProt ID:</b>	<a href="#">P56696</a>
<b>Cytogenetics:</b>	1p34.2
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Potassium, Transmembrane
<b>Gene Summary:</b>	<p>The protein encoded by this gene forms a potassium channel that is thought to play a critical role in the regulation of neuronal excitability, particularly in sensory cells of the cochlea. The current generated by this channel is inhibited by M1 muscarinic acetylcholine receptors and activated by retigabine, a novel anti-convulsant drug. The encoded protein can form a homomultimeric potassium channel or possibly a heteromultimeric channel in association with the protein encoded by the KCNQ3 gene. Defects in this gene are a cause of nonsyndromic sensorineural deafness type 2 (DFNA2), an autosomal dominant form of progressive hearing loss. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer and predominant isoform (a).</p>