

## Product datasheet for **SC122128**

### KCNA1 (NM\_000217) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KCNA1 (NM_000217) Human Untagged Clone
Tag:	Tag Free
Symbol:	KCNA1
Synonyms:	AEMK; EA1; HBK1; HUK1; KV1.1; MBK1; MK1; RBK1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_000217 edited  
 ATGACGGTGATGTCTGGGGAGAACGTGGACGAGGCTTCGGCCGCCCGGGCCACCCCGAG  
 GATGGCAGCTACCCCGGCAGGCCGACCACGACGACCACGAGTGCTGCGAGCGCGTGGTG  
 ATCAACATCTCCGGGCTGCGCTTCGAGACGACGCTCAAGACCCTGGCGCAGTTCCCAAC  
 ACGCTGCTGGGCAACCCTAAGAAACGCATGCGCTACTTCGACCCCTGAGGAACGAGTAC  
 TTCTTCGACCGCAACCGGCCAGCTTCGACGCCATCCTCTACTACTACCAGTCCGGCGGC  
 CGCCTGCGGAGGCCGCTCAACGTGCCCTGGACATGTTCTCCGAGGAGATCAAGTTTTAC  
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 GAGCGCCTCTGCCCCGAGAAGGAGTACCAGCGCCAGGTGTGGCTGCTCTCGAGTACCC  
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 TCTGGGGAGAACGTGGACGAGGCTTCGGCCGCCCGGGCCACCCAGGATGGCAGCTAC



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CCCCGGCAGGCCGACCACGACGACCACGAGTGCTGCGAGCGCGTGGTGATCAACATCTCC
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GCCATCCTCAGGGTCATCCGCTTGGTAAGGGTTTTTAGAATCTTCAAGCTCTCCCGCCAC
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TCCAATTTCAACTATTTCTACCACCGAGAACTGAGGGGGAAGAGCAGGCTCAGTTGCTC
CACGTCAAGTCCCTAACTTAGCCTCTGACAGTGACCTCAGTCGCCCGAGTTCCTCTACT
ATGAGCAAGTCTGAGTACATGGAGATCGAAGAGGATATGAATAATAGCATAGCCATTAT
AGACAGGTCAATATCAGAACTGCCAATTGCACCACAGCTAACCAAACTGCGTTAATAAG
AGCAAGCTACTGACCAAGGGCGA
    
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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_000217 unedited GTTTTCATTTGTATACGACTCCTATAGGCGGCACGCGATTGCCCCCTATGACGGTGATGT CTGGGGAGAACGTGGACGAGGCTTCGGCCGCCCGGGCCACCCCCAGGATGGCAGTACC CCCGGCAGGCCGACCACGACGACCACGAGTGCTGCGAGCGGTGGTGATCAACATCTCCG GGCTGCGCTTCGAGACGAGCTCAAGACCCTGGCGCAGTCCCAACACGCTGCTGGGCA ACCCTAAGAAAACGCATGCGCTACTTCGACCCCTGAGGAACGAGTACTTCTTCGACNCGC AACCGGCCAGCTTCGACGCCATCCTCTACTACTACCAGTCCGGCGGCCGCTGCGGAGG CCGGTCAACGTGCCCTGGACATGTTCTCCGAGGAGATCAAGTTTTACGAGTTGGGCGAG GAGGCCATGGAGAAGTTCGGGGAGGACGAGGGTTCATCAAGGAGGAGGAGCGCCCTCTG CCCGAGAAGGAGTACCAGCGCCAGGTGTGGCTGCTCTTCGAGTACCCCGAGAGCTCGGGG CCCGCCAGGGTCATCGCCATCGTCTCCGTATGGTCATCCTCATCTCCATCGTCATCTTT TGCCTGGAGACGCTCCCGAGCTGAAGGATGACAAGGACTTCACGGGCACCGTCCACCGC ATCGACAACACCAGGTATCTACAATCCAACATCTTCACAGACCCCTTCTTCATCGTG GAAACGCTGTGCATCATCTGGTTCTCCTTCGAGCTGGTGGTGCCTTCTTCGCTGCCCC AGCAGACAGACTTCTTCAAACATCATGAACCTCATAGACATTGTGGCCATCATTCTTA TTTTCATACCCCTGGGCACCGAGATAGCTGAGCAGGAAGGAAACCAGATGGCGAGCAGGCC ACTNCCTGCCATCCTCAGNNTCATCGCTGGTAAGGNCTTTTAAA
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_000217
<b>Insert Size:</b>	1500 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>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_000217.1</a></u> , <u><a href="#">NP_000208.1</a></u>
<b>RefSeq Size:</b>	1488 bp
<b>RefSeq ORF:</b>	1488 bp
<b>Locus ID:</b>	3736
<b>UniProt ID:</b>	<u><a href="#">Q09470</a></u>
<b>Cytogenetics:</b>	12p13.32
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Potassium, Transmembrane

**Gene Summary:**

This gene encodes a voltage-gated delayed potassium channel that is phylogenetically related to the Drosophila Shaker channel. The encoded protein has six putative transmembrane segments (S1-S6), and the loop between S5 and S6 forms the pore and contains the conserved selectivity filter motif (GYGD). The functional channel is a homotetramer. The N-terminus of the channel is associated with beta subunits that can modify the inactivation properties of the channel as well as affect expression levels. The C-terminus of the channel is complexed to a PDZ domain protein that is responsible for channel targeting. Mutations in this gene have been associated with myokymia with periodic ataxia (AEMK). [provided by RefSeq, Jul 2008]