

## Product datasheet for **SC306758**

### KCNH1 (NM\_172362) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KCNH1 (NM_172362) Human Untagged Clone
Tag:	Tag Free
Symbol:	KCNH1
Synonyms:	EAG; EAG1; h-eag; hEAG; hEAG1; Kv10.1; TMBTS; ZLS1
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_172362, the custom clone sequence may differ by one or more nucleotides

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ATGACCATGGCTGGGGCAGGAGGGGACTAGTGGCCCTCAAACACGTTTCTGGAGAAT
ATTGTTCCGGCGTCCAATGATACTAATTTGTGTTGGGAATGCTCAGATAGTGGACTGG
CCTATTGTGTACAGCAATGATGGATTTTGAAGCTGTCTGGCTATCACAGGGCAGAAGTG
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GAGGATGATTCATGTAAAGGCTGGGGAAAGTTTGCCTCGGCTGACAAGAGCACTGACAAGC
AGCAGGGGTGTCCTGCAGCAGCTGGCTCCAAGCGTGCAAAAAGGGGAGAATGTCCACAAG
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GAGGCACCAAAGACTCCCCCTCACATCATCTTACATTATTGTGTTTTAAGACCAGTGG
GATTGGATCATCTTGATCTTGACCTTCTATACAGCCATCTTGGTCCCTTATAATGTCTCC
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AGAGAGAGTCAGGGCATCAGCAGCCTGTTGAGCTCTCTAAAAGTTGTCGGCTGCTCCGT
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GGGGACTATGAGATCTTTGACGAGGACACCAAGACAATCCGCAACAACAGCTGGCTGTAC
CAACTAGCGATGGACATTGGCACCCCTTACCAGTTTAAATGGGTCTGGCTCAGGGAAGTGG
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CTACCAGTGTGGGCTTTGGGAACATCGCCCCATCCACAGACATTGAGAAGATCTTTGCA
GTGGCCATCATGATGATTGGCTCACTTCTCTATGCCACCATCTTCGGGAATGTGACGACT
ATTTTCCAACAGATGTATGCCAACCAACAGATACCATGAGATGCTCAACAGTGTTCGG
GACTTCTGAAGCTCTACCAGGTGCCAAAAGGATTGAGTGAGCGAGTAATGGATTATATT
GTGTCCACTTGGTCCATGTCCAGAGGCATTGACACAGAGAAGGTCCTGCAGATCTGCCCC
AAGGACATGAGAGCCGACATCTGCGTGCACCTGAACCGCAAGGTGTTCAAGGAGCACCCG

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GCCTTCCGGCTGGCCAGTGTGGCTGCCTCCGGGCACTGGCCATGGAGTTCCAGACGGTG
CACTGTGCCCCAGGGGACCTCATCTACCATGCAGGAGAGAGCGTTGACAGCCTCTGCTTT
GTGGTTTCTGGCTCCCTGGAGGTGATCCAAGATGATGAGGTGGTGGCCATTCTAGGAAAA
GGAGACGTGTTTGGAGATGTGTTCTGGAAGGAAGCCACCCTTGCCCAGTCCTGTGCCAAT
GTTAGGGCCTTGACCTACTGTGATCTGCATGTGATCAAGCGGGATGCCCTGCAGAAAGTG
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TTGAGGAAGAGGATTGTGTTCCGGAAGATCAGCGATGTGAAACGTGAAGAGGAAGAAGCG
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TCCAGAGATTCCGACAGCAGAAAGAGGCCAGGCTGGCAGCTGAGAGAGGGGGCCGGGAC
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AGCCTCGTGAAGGCCAGCGTGGTACCCTGCGTGAGAGTCTGCCACGCCCGTATCCTTC
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TGCTGGCCCCAAGGGGGCGGGGGCGATTGTGCCAAGCGCAAAGCTGGGCCCGCTTC
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ACACTTCCCGAGAGGACAAAAGCGTCAGGCGAGGCCACACTGAAGAAGACAGACTCGTGT
GACAGTGGCATCACCAAGAGCGACTTGCGCCTGGACAACGTGGGTGAGGCCAGGAGTCCC
CAGGATCGGAGTCCCATCCTGGCAGAGGTCAAGCATTCTGTTCTACCCCATCCCTGAGCAG
ACGCTGCAGGCCACAGTCTGGAGGTGAGGCACGAGCTGAAGGAGGACATCAAGGCCCTTA
AACGCCAAAATGACCAATATTGAGAAACAGCTCTCTGAGATACTCAGGATATTAACCTTC
AGAAGATCCTCTCAGTCTCCTCAGGAGTTGTTTGAATATCGAGGCCACAGTCCCAGAA
TCAGAGAGAGACATTTTTGGAGCCAGCTGA
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**Restriction Sites:**

Please inquire

**ACCN:**

NM\_172362

**OTI Disclaimer:**

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 [custsupport@origene.com](mailto:custsupport@origene.com) 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. [More info](#)

**OTI Annotation:**

This clone may be unstable or toxic at high copy number in common *E. coli* strain. We recommend using a lower copy number *E. coli* strain, such as CopyCutter strain (<http://www.epibio.com/item.asp?ID=435>) for transformation and plasmid preparation. Please be aware that the DNA yield could be low. Additional aliquots of this clone can be ordered from OriGene.

**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>	<u>NM_172362.1, NP_758872.1</u>
<b>RefSeq Size:</b>	3208 bp
<b>RefSeq ORF:</b>	2970 bp
<b>Locus ID:</b>	3756
<b>UniProt ID:</b>	<u>O95259</u>
<b>Cytogenetics:</b>	1q32.2
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Potassium, Transmembrane
<b>Gene Summary:</b>	<p>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, subfamily H. This member is a pore-forming (alpha) subunit of a voltage-gated non-inactivating delayed rectifier potassium channel. It is activated at the onset of myoblast differentiation. The gene is highly expressed in brain and in myoblasts. Overexpression of the gene may confer a growth advantage to cancer cells and favor tumor cell proliferation. Alternative splicing of this gene results in two transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (1), also known as eagB, encodes the longer isoform (1).</p> <p>Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.</p>