

Product datasheet for **SC310004**

KCNH4 (NM_012285) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: KCNH4 (NM_012285) Human Untagged Clone
Tag: Tag Free
Symbol: KCNH4
Synonyms: BEC2; ELK1; Kv12.3
Mammalian Cell Selection: None
Vector: [pCMV6-XL5](#)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_012285 edited
 ATGCCGGTCATGAAGGGGTTGCTGGCCCCGAAAACACCTTCCTGGACACCATCGCCACC
 CGTTTTGACGGAACGCACAGCAACTTCTGCTGGCCAACGCACAGGGCACACGGGGCTTT
 CCCATCGTCTACTGCTCCGACGGCTTCTGCGAGCTCACAGGCTACGGTCCGACCCAGGTC
 ATGCAGAAGACCTGCAGCTGCCGTTTCTCTACGGCCCAGAGACCAAGTGCAGCCAGCCCTG
 CAGCGTCTGCACAAAGCCCTGGAGGGCCACCAGGAGCACCGGGCTGAAATCTGCTTCTAC
 CGCAAGGATGGCTCAGCCTTTTGGTGCCTCCTGGACATGATGCCCATCAAGAATGAGATG
 GGGGAGGTCGTGCTGTTCTTTTCTTCAAGGATATCACTCAGAGTGAAGCCAGGA
 CTTGGCCCCAAGGAGCCGCGGGGACAGTAATCACGAAAACCTCCCTGGTAGAAGGGGA
 GCCACCTGGAAATTTTCGGTCTGCCAGAAGACGGAGCCGACTGTCCTACACCGACTGACC
 GGCCACTTTGGCCGCGGGGCCAGGGAGGCATGAAGGCCAATAATAACGTGTTTGAGCCA
 AAGCCATCAGTGCCCGAGTACAAGGTGGCTCCGTGGGGGGTCTCGCTGCCTCCTCCTC
 CACTACAGCGTCTCCAAGCCATCTGGGACGGCCTTATCCTCCTTGCACCTTCTACGTT
 GCGGTACCCGTCCCCTACAATGTCTGTTTCTCGGGTGACGATGACACCCCATCACTTCG
 CGACACACCCCTTGTACGCGACATCGCCGTGAAATGCTCTTACCTAGATATCATCCTG
 AACTTCCGACACCATATGTGTCCAGTCCGGCCAGGTAATCTCTGCTCCTCGTTCCATT
 GGCTCCACTACCTGGCCACCTGGTCTTTCATCGACCTTATTGCTGCTCTGCCCTTGAC
 CTGCTTTACATCTTCAACATCACCGTGACCTCGCTGGTGCACCTACTGAAGACAGTGCGG
 CTGTTGCGGCTGCTGCGGCTGCTGCAGAAGCTGGAGCGTACTCAGTGCAGTGCCTGTG
 GTGCTCACGCTGCTCATGTGCGTCTTTGCGCTCCTTGCCCATGGATGGCCTGCATCTGG
 TATGTATCGGGCGCCGGGAGATGGAGGCAATGACCCGCTGCTCTGGGACATTGGCTGG
 TTGCATGAGTTGGGAAGCGTCTGGAGGTGCCCTATGTCAATGGCTCGGTGGGCGGCCCA
 TCACGGCGCAGCGCTACATCGCGGCACTGTACTTCACTTAAGCAGCCTCACCAGTGTG
 GGCTTTGGCAACGTGTGTCCAACACCGACGCGGAGA: : : : AGATCTTCTCCATCTGC
 ACGATGCTCATAGGCGCCTGATGCACGCTGTGGTGTTCGGGAACGTGACAGCCATCATC
 CAGCGCATGTACTCGCGCGCTCGCTCTACCACAGCCGATGAAGGACCTCAAGGACTTC
 ATCCGTGTGCACCGCCTGCCGCGCGCTCAAGCAGCGCATGCTCGAATACTTCCAGACC



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ACGTGGGCCGTCAACAGCGGCATCGACGCCAACGAGTTACTGCGTGACTTCCCAGACGAG
CTGAGAGCTGACATTGCTATGCACCTGAATCGGGAGATCCTGCAGCTGCCGTTGTTCCGGG
GCAGCGAGCAGGGGCTGCCTGCGGGCCCTATCGCTGCACATCAAGACCTCGTTCTGCGCT
CCGGGCGAGTACCTGTTGCGCCGTGGGGATGCCCTGCAGGCACATTACTATGTCTGCTCC
GGCTCGCTTGAGGTGCTCCGAGACAACATGGTGTGGCCATCCTGGGGAAGGGGGACCTG
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GTGCTAAAGACCAGTGCTGATGTGAAAGCTCTGACCTACTGTGGCCTGCAGCAGCTGAGC
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GGCCTGCCCGGGACCTCACCTTCAACCTGCGCCAGGGCTCTGACACCAGTGGCCTCAGC
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GACAAGACGCTGCCATCCATCACAGAGGCCGAGAGTGGCGCGGAGCCTGGGGTGGTCCC
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CGGGAGCTGCGGCACATCATGGGCTGCTGCAGGCCAGGCTGGTCCCCCAGGCCACCCA
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CCTTGTGCGTCCAGACCACCACCAGCCTCCAGGATACTACGCTTGTGTAAGTTCACTGC
CCAGCCAGTGTGGGGACCATGGAGACAGGACTGCGCTCCTGGACTTGAGACCTTCCATA
TTGCCCCCTACCCCTCAGAGCCTGACCCCTGAGGACCCTCTCCAGTGCCAGAGGGCTCA
CCCCAACCCCAAGCCTTGTAGGCACAGTTTCCAGTCCAGTCCAGACACGTTCCACTGA

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- Restriction Sites:** Please inquire
- ACCN:** NM_012285
- Insert Size:** 3200 bp
- 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 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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).

Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.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.
RefSeq:	<u>NM_012285.1, NP_036417.1</u>
RefSeq Size:	3920 bp
RefSeq ORF:	3054 bp
Locus ID:	23415
UniProt ID:	<u>Q9UQ05</u>
Cytogenetics:	17q21.2
Protein Families:	Druggable Genome, Ion Channels: Potassium, 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, subfamily H. This member is a pore-forming (alpha) subunit. The gene is brain-specific, and located in the neocortex and the striatum. It may be involved in cellular excitability of restricted neurons in the central nervous system. [provided by RefSeq, Jul 2008]