

Product datasheet for **RG220410**

Kv3.2 (KCNC2) (NM_139136) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv3.2 (KCNC2) (NM_139136) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kv3.2
Synonyms:	KV3.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG220410 representing NM_139136
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCAAGATCGAGAACAACGAGAGGGTGATCCTCAATGTCGGGGGCACCCGGCACGAAACCTACCGCA
 GCACCCTCAAGACCCTGCCTGGAACACGCCTGGCCCTTCTTGCCTCCTCGAGCCCCAGGGGACTGCTT
 GACCACGGCGGGCGACAAGCTGCAGCCGTCGCCGCCCTCCACTGTCGCCGCCGCCGAGAGCCCCCGCTG
 TCCCCGGGCCAGGGCGCTGCTTCGAGGGCGCGCGGCAACTGCAGTCCCGCGCGGCAGGGCCAGCG
 ACCATCCCGTGGCGCCGCGAGTTCTTCTCGACCGGCACCCGGGCGTCTTCGCTATGTGCTCAATTA
 CTACCGCACCGGCAAGCTGCACTGCCCCGAGACGTGTGCGGGCCGCTCTTCGAGGAGGAGCTGGCCTTC
 TGGGGCATCGACGAGACCGACGTGGAGCCCTGCTGCTGGATGACCTACCGGCAGCACCGCGACGCCGAGG
 AGGCGCTGGACATCTTCGAGACCCCGACCTATTGGCGGCACCCGGCGACGACGAGGACCTGGCGGC
 CAAGAGGCTGGGCATCGAGGACCGCGCGGGCTCGGGGGCCCCGACGGCAAATCTGGCCGCTGGAGGAGG
 CTGCAGCCCCGCATGTGGGCCCTTTCGAAGACCCTACTCGTCCAGAGCCGCCAGGTTTATTGCTTTTG
 CTCTTTATTCTTCATCCTGGTTTCAATTACAACTTTTTGCCTGGAAACACATGAAGCTTCAATATTGT
 TAAAAACAAGACAGAACCAGTCAATGGCACAAAGTGTGTGTTCTACAGTATGAAATTGAAACGGATCCT
 GCCTTGACGTATGTAGAAGGAGTGTGTGGTGTGGTTACTTTTGAATTTTAGTCCGTATTGTTTTT
 CACCCAATAAACTTGAATTCATCAAAAATCTCTTGAATATCATTGACTTTGTGGCCATCCTACCTTTCTA
 CTTAGAGGTGGGACTCAGTGGGCTGTATCAAAGCTGCTAAAGATGTGCTTGGCTTCTCAGGGTGGTA
 AGGTTTGTGAGGATCCTGAGAATTTTCAAGCTCACCCGCCATTTTGTAGGCTGAGGGTCTTGACATA
 CTCTTCGAGCTAGTACTAATGAATTTTGTCTGATAATTTTCTGGCTTAGGAGTTTGTATATTTGTC
 TACCATGATCTACTATGCCGAGAGAGTGGGAGCTCAACCTAACGACCCTCAGCTAGTGAGCACACACAG
 TTCAAAAACATTCCTCATTGGTTCTGGTGGGCTGTAGTGACCATGACTACCCTGGTTATGGGGATATGT
 ACCCCCAAACATGGTCAGGCATGCTGGTGGGAGCCCTGTGTGCTCGGCTGGAGTGTGACAATAGCCAT
 GCCAGTGCCTGTCTTGTCAATAATTTTGAATGTACTACTCCTTGGCAATGGCAAAGCAGAAAATTCCA
 AGGAAAAGAAAGAAGCACATCCCTCCTGCTCCTCAGGCAAGCTCACCTACTTTTTGCAAGACAGAATTA
 ATATGGCCTGCAATAGTACACAGAGTACACATGTCTGGGCAAAGACAATCGACTTCTGGAACATAACAG
 ATCAGTGTATCAGGTGACGACAGTACAGGAAGTACAGCCCACTATCACCCCGAAAGGCTCCCATC
 AGACGCTCTAGTACCAGAGACAAAACAGAAGAGGGGAAACATGTTTCTACTGACGACAGGTGATTACA
 CGTGTGCTTCTGATGGAGGGATCAGGAAAGATAACTGCAAAGAGGTTGTCATTACTGTTACACGCAAGC
 CGAGGCCAGATCTTACT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG220410 representing NM_139136
 Red=Cloning site Green=Tags(s)

MGKIENNERVILNVGGTRHETYRSTLKLTPGTRLALLASSEPPGDCLTTAGDKLQSPPPPLSPPPRAPPL
 SPGPGGCFEGGAGNCSSRGRASDHPPGGREFFDRHPGVFAVYLNYYRTGKLHCPADVCGPLFEEELAF
 WGIDETDVEPCCWMTYRQHRDAEEALDIFETPDLIGGDPGDEDLAAKRLGIEDAAGLGGPDGKSGRWRR
 LQPRMWFEDPYSSRAARFIAFASLFFILVSITTFCLETHEAFNIVKNKTEPVINGTSVVLQYEIETDP
 ALTYVEGVCVVWTFEFLVRIVFSNPKLEFIKNLLNIIDFVAILPFYLEVGLSGLSSKAAKDVLFGLRVV
 RFVRILRIFKLRHFVGLRVLGHTLRASNEFLLLIIFLALGVLIFATMIYYAERVGAQPNDPSASEHTQ
 FKNIPIGFWAVVTMTTLGYGDMYPQTWSGMLVGLCALAGVLTAMPVPIVNNFMYSLAMAKQLP
 RKRKKHIPPAPQASSPTFCKTELNMACNSTQSDTCLGKDNRLLEHNRSVLSGDDSTGSEPPLSPPERLPI
 RRSSTRDKNRRGETCFLLTTGDYTCASDGGIRKDNCKEVVITGYTQAEARSLT

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_139136

ORF Size: 1839 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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:**
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: [NM_139136.3](#), [NP_631874.1](#)

RefSeq Size: 3510 bp

RefSeq ORF: 1842 bp

Locus ID: 3747

UniProt ID: [Q96PR1](#)

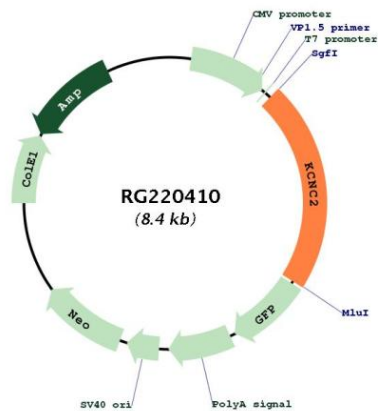
Cytogenetics: 12q21.1

Domains: BTB, K_tetra, ion_trans

Protein Families: Druggable Genome, Ion Channels: Potassium, Transmembrane

Gene Summary: The Shaker gene family of Drosophila encodes components of voltage-gated potassium channels and is comprised of four subfamilies. Based on sequence similarity, this gene is similar to one of these subfamilies, namely the Shaw subfamily. The protein encoded by this gene belongs to the delayed rectifier class of channel proteins and is an integral membrane protein that mediates the voltage-dependent potassium ion permeability of excitable membranes. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2012]

Product images:



Circular map for RG220410