

Product datasheet for **RC222238**

KCNC3 (NM_004977) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNC3 (NM_004977) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNC3
Synonyms:	KSHIID; KV3.3; SCA13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC222238 representing NM_004977
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGAGCTCAGTCTGCGTCTCGTCTCCGCGGGCCAGGGGCCAGCAAGCAGCAGCCGGCGCCAC
 CGCCGCAGCCGCCGAGTCCCGCCGCCACCCTGCGCGCAGCAGCAGCAGCCTGCGCAGCCCGG
 CCCCAGCGCGTCCCCGGCGGGCCCCCGGCACCCCGGGGCCCGGGACCAGGCGCGCCGAGCCATGCCCC
 GGGCTGCCGGCGGCCATGGGGCGGCACGGCGGGCGGGTGGCGACAGCGGAAGATCGTGATCAACG
 TGGGGCGGTGCGCCATGAGACGTACCGCTCGACGCTGCGCACCCCTGCCGGGACCGGGCTGGCCGGCT
 GACGGAGCCCGAGGCGGGCACGCTTCGACTACGACCCGGCGCCGACGAGTTCTTTGACCGGCAC
 CCGGGAGTCTTCGCGTACGTGCTCAACTACTACCGCACCGGAAGCTGCACTGCCAGCCGACGTGTGG
 GGCCCTGTTTGGAGGAGCTCGGCTTCTGGGCATCGACGAGACCGACGTGGAGGCTGCTGCTGGAT
 GACCTACCGGCAGCATCGCGACGCTGAGGAGCGCTCGACTCCTTCGAGGCGCCGACCCCGGGCGCC
 GCCAACCGCCCAACGCCGACGGCGCCACGACGAGGCCCTGGACGACGAGGCGGGCGGGCGGGCGGCG
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 GCCAGGGGGCGGGCGGGCGGGCGGCACATGGTGGCGCCGCTGGCAGCCCCGCGTGTGGGCGCTTTC
 GAGGACCCTACTCGTCGCGGGTGCCAGGTATGTGGCCTTCGCCTCCCTCTTTCATCCTCATCTCCA
 TCACCACCTTCTGCCTGGAAACCCATGAGGGCTTCATCCATATTAGCAACAAGACGGTGACCCAGGCCTC
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 GTGGAGGGGGTGTGCGTGGTCTGGTTCACCTTCGAGTTCCTCATGCGCATCACCTTCTGCCAGACAAGG
 TGGAGTTTCTTAAAAGCAGCCTCAACATCATCGACTGTGTGGCCATCTGCCCTTCTATCTCGAGGTGG
 CCTCTCGGGCCTCAGCTCCAAGGCCGCCAAGAGGTGCTGGGCTTCTGCGGGTGGTCCGCTTCGTCGC
 ATCCTGCGCATCTTCAAGCTGACCCGGCACTTCGTGGGGCTGCGCGTGTGGGACACAGCTCCGCGCCA
 GCACCAACGAGTTCCTGCTGCTCATCATCTTCTGGCCCTGGGGGTGCTCATCTTCGCCACCATGATTTA
 CTACGCTGAGCGCATTGGCGCCGACCCGATGACATCCTGGGCTCCAACCACACCTACTTCAAGAACATC
 CCCATTGGCTTCTGGTGGGCTGTGGTACCATGACGACCCTGGGCTATGGAGACATGTACCCCAAGACGT
 GGTCCGGGATGCTGGTCCGGGCGCTGTGTGCCCTGGCGGGGTGCTGACCATCGCCATGCCTGTGCCGT
 CATTGTCAACAACCTTTGGCATGTACTATTCGCTGGCCATGGCCAAGCAGAAGCTGCCAAGAAGAAGAAC
 AAACACATCCCCGGCCCCGCAACCGGGCTCGCCCACTACTGCAAGCCTGACCCACCCCGCCACCCC
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 GACTGTGGCCGGGGCCTACCCAGCGGGGCCACACGCACCCCGGGCTGCTCAGGGGGGAGCGGGTGGG
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 TTGAGATCAACCGGGCAGATCCTCGCCCAATGGGGATCCGGCAGCAGCTGCGCTTGCCACGAGGACTG
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 TATAGCCGGGACCGAGCCTGCTTCTCCTACCGACTATGCCCTTCCCCTGATGGCTCCATCCGAAAAG
 CCACTGGTGTCCCCACTGCCCCCAAGACTGGCGTAAGCCAGGCCCCCAAGCTTCTTGCCCGACCT
 CAACGCCAACCGCGGGCTGGATATCCCC

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC222238 representing NM_004977
Red=Cloning site Green=Tags(s)

MLSSVCVSSFRGRQGASKQQPAPPQPPEPPPPPLPPQQQPAQPGPAASPAGPPAPRPGDRAEPCP
 GLPAAAMGRHGGGGDSGKIVINVGGVRHETYRSTLRTPGLRAGL TEPEAAARFDYDPGADEF FDRH
 PGVFAYVLNYYRTGKLHCPADVCGPLFEEELGFWGIDETDVEACCWMTYRQHRDAEEALDSFEAPDPAGA
 ANAANAAGAHGGGLDDEAGAGGGGLDGAGGELKRLCFQDAGGGAGPPGGAGGAGGTWRRWQPRVWALF
 EDPYSSRAARYVAFASLFFILISITTFCLETHEGF I H I S N K T V T Q A S P I P G A P P E N I T N V E V E T E P F L T Y
 VEGVCVWVWTFEFLMRITFCPDKVEFLKSSLNIIDCVAILPFYLEVGLSGLSSKAAKDVLGFLRVVRFVR
 ILRIFKLTRHFVGLRVLGHTLRASTNEFLLLIIIFLALGVLIFATMIYYAERIGADPDDILGSNHTYFKNI
 PIGFWWAVVTMTLGYGDMYPKTWSGMLVGALCALAGVLT I A M P V P V I V N N F G M Y S L A M A K Q K L P K K K N
 K H I P R P P Q P G S P N Y C K P D P P P P P P H P H H G S G G I S P P P P I T P P S M G V T V A G A Y P A G P H T H P L L R G G A G G
 L G I M G L P P L P A P G E P C P L A Q E E V I E I N R A D P R P N G D P A A A A L A H E D C P A I D Q P A M S P E D K S P I T P G S R G R
 Y S R D R A C F L L T D Y A P S P D G S I R K A T G A P P L P P Q D W R K P G P P S F L P D L N A N A A A W I S P

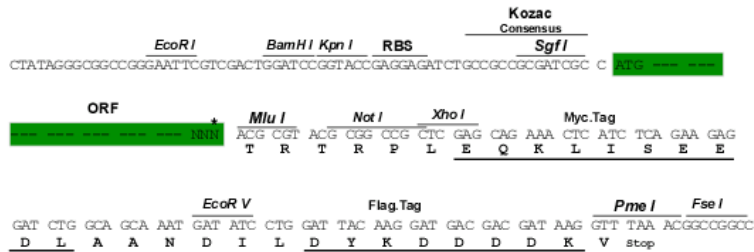
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6864_b11.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_004977

ORF Size: 2271 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_004977.3](#)

RefSeq Size: 3176 bp

RefSeq ORF: 2274 bp

Locus ID: 3748

UniProt ID: [Q14003](#)

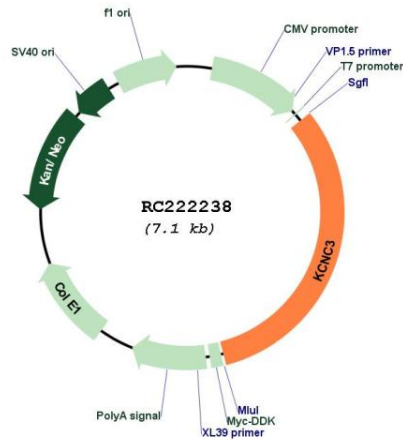
Cytogenetics: 19q13.33

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

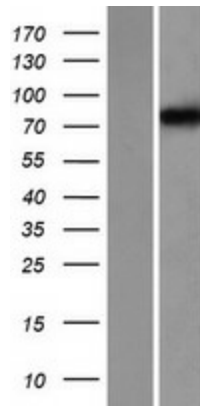
MW: 80.4 kDa

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. Alternate splicing results in several transcript variants. [provided by RefSeq, Mar 2014]

Product images:



Circular map for RC222238



Western blot validation of overexpression lysate (Cat# [LY417609]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222238 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).