

## Product datasheet for **RG225985**

### **KCNC1 (NM\_001112741) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KCNC1 (NM_001112741) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KCNC1
Synonyms:	EPM7; KV3.1; KV4; NGK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG225985 representing NM\_001112741  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGCCAAGGGGACGAGAGCGAGCGCATCGTGATCAACGTGGGCGGCACGCGCCACCAGACGTACCCT  
 CGACCCTGCGCACGCTGCCCGCACGCGCTCGCCTGGCTGGCGGAGCCGACGCCACAGCCACTTCGA  
 CTATGACCCGCGTGCTGACGAGTCTTCTTCGACCGCCACCCCGCGTCTTCGCGCACATCCTGAACTAC  
 TACCGCACGGCAAGCTGCACTGCCAGCCGACGTGTGCGGGCCGCTCTACGAGGAGGAGCTGGCCTTCT  
 GGGGATCGACGAGACCGACGTGGAGCCCTGCTGCTGGATGACGTACCGCCAGCACCGCGACGCCGAGGA  
 GGCTCTGGACAGCTTCGGCGGCGCTCCTCTGGACAACAGCGCCGACGACGCGGACGCCGACGCCCTGGC  
 GACTCGGGCGACGGCGAGGACGAGCTGGAGATGACCAAGCGCCTGGCGCTCAGTGACTCCCCGGATGGCC  
 GGCTGGCGGCTTTTGGCGCCGCTGGCAGCCGCGCATCTGGCGCTCTTCGAGGACCCGACTCGTCCCG  
 CTACGCGCGGTATGTGGCCTTCGCTTCCCTCTTTCATCCTGGTCTCCATCACCACCTTCTGCCTGGAG  
 ACCCACGAGCGCTTCAACCCCATCGTGAACAAGACGGAGATCGAGAACGTTTCGCAATGGCACGCAAGTGC  
 GCTACTACCGGGAGGCCGAGACGGAGGCCCTTCTTACCTACATCGAGGGCGTCTGTGTGGTCTGGTTCAC  
 CTTTCGAGTTTCTCATGCGTGTACATCTTCTGCCCAACAAGGTAGAGTTTCAAGAACTCGCTCAACATC  
 ATTGACTTTGTGGCCATCCTGCCCTTCTACCTGGAGGTGGGGCTGAGCGGCTGTCTCCAAGGCAGCCA  
 AGGACGTGCTGGGCTTCTGCGCGTCTGCGCTTCGTGCGCATCTTGGCATCTTAAAGTGACCCGCCA  
 CTTTGTGGGCTGCGGCTCCTGGCCACACGCTCCGAGCCAGCACCAACGAGTTCCTGCTGCTCATCATC  
 TTCTGGCCTTGGCGTGTGATCTTCGCCACCATGATCTACTACGCCGAGAGGATAGGGGCACAGCCCA  
 ATGACCCAGCCAGTGAACACGACGCACTTTAAGAACAATCCCATCGGCTTCTGGTGGGCGTGTGTCAC  
 CATGACGACCCCTGGGCTATGGAGACATGTACCCGACAGCGTGGTCCGGCATGCTGGTGGGGCTCTGTGT  
 GCGCTGGCGGGCGTGTACCATCGCCATGCCCGTCCCGTTCATCGTGAACAATTCGGGATGTATTACT  
 CCTTAGCCATGGCTAAGCAGAACTACCAAGAAAAAAGAAGCATATTCGCGGCCACCAGCTGGG  
 ATCTCCAATTATTGTAATCTGTGTAACCTCTCCACACCACAGTACTCAGAGTGACACATGTCCGCTG  
 GCCCAGGAAGAAATTTAGAAATTAACAGAGCAGATTCCAACCTGAATGGGGAGGTGGCGAAGGCCGCGC  
 TGGCGAACGAAGACTGCCCCACATAGACCAGGCCCTCACTCCCGATGAGGGCTGCCCTTACGCGCTC  
 GGGCACCCGCGAGAGATACGGACCCTGCTTCTCTTATCAACCGGGAGTACGCGTCCACCTGGTGGAA  
 GGATGAGAAAGGATCTTTCGAAAGAAAGCCCTGTCATTGCTAAGTATATGCCGACAGAGCTGTGAGAG  
 TGACT

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG225985 representing NM\_001112741  
 Red=Cloning site Green=Tags(s)

MQQDESERIVINVGTRHQTYRSTLRITLPGTRLAWLAEPDAHSHFDYDPRADFFFDHRHPGVFAHILNY  
 YRTGKLHCPADVCGPLYEELAFWGIIDETDVEPCWMTYRQHRDAEEALDSFGGAPLDNSADDADADGPG  
 DSGDGEDELEMTKRLALSDSPDGRPGFWRWQPRIWALFEDPYSSRYARYVAFASLFFILVSITTFCLE  
 THERFNPVKNKTEIENVRNGTQVRYREAEAEFLTYIEGVCVVWFTFEFLMRVIFCPNKVEFIKNSLNI  
 IDFVAILPFYLEVGLSGLSSKAAKDVLFGLRVVRFVIRILRIFKLTRHFVGLRVLGHTLRASNEFLLLII  
 FLALGVLIFATMIYYAERIGAQPNDPSASEHTEFKNIPIGFWWAVVTMTLGYGDMYPQTWSGMLVGALC  
 ALAGVLTIAAMPVPIVNNFGMYSLAMAKQKLPKPKKKKHIIPRPQLGSPNYCKSVVNSPHHSTQSDTCPL  
 AQEEIILEINRADSKLNGEVAKAALANEDCPHIDQALTPDEGLPFRSGTRERYGPCFLLSTGEYACPPGG  
 GMRKDLCKESPIAKYMPTEAVRVT

SGP**TRRRLE** - GFP Tag - V

**Restriction Sites:**

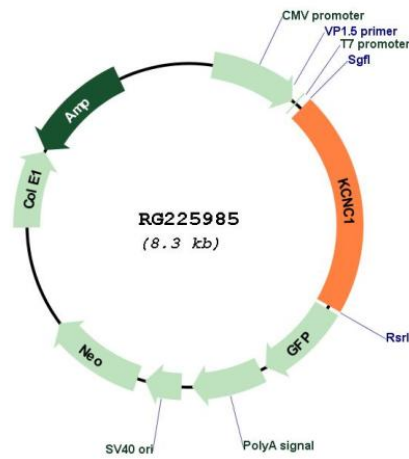
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM\_001112741  
 ORF Size: 1755 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_001112741.2</a>
<b>RefSeq Size:</b>	3134 bp
<b>RefSeq ORF:</b>	1758 bp
<b>Locus ID:</b>	3746
<b>UniProt ID:</b>	<a href="#">P48547</a>
<b>Cytogenetics:</b>	11p15.1
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Potassium, Transmembrane
<b>Gene Summary:</b>	This gene encodes a member of a family of integral membrane proteins that mediate the voltage-dependent potassium ion permeability of excitable membranes. Alternative splicing is thought to result in two transcript variants encoding isoforms that differ at their C-termini. These isoforms have had conflicting names in the literature: the longer isoform has been called both "b" and "alpha", while the shorter isoform has been called both "a" and "beta" (PMIDs 1432046, 12091563). [provided by RefSeq, Oct 2014]