

Product datasheet for **RR213597**

Kcnq3 (NM_031597) Rat Tagged ORF Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Kcnq3 (NM_031597) Rat Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Kcnq3 |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |



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ORF Nucleotide Sequence:

>RR213597 representing NM_031597
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCATTGGAGTTCCTCCGGCTTGCAGCCGCCCGCCCGCTCGTCCCGTACCCCAAGCGCTCCTTCTTC
 CCGGAGCAGCAGCGGAGAAGGCGAAGCGCCCGTGGGGCGAGGCAGATGGGGCTCAAGGCTCGCAGGGC
 GGCGGGGGCGCCGGCGGGGGCGCGCCGAAGGGGGCGGAGGAGCGCGGGGGCGCTAACCCGGCTGGA
 GGGGACTCGGCAGTGGCCGGCGACGAGGAGCGAAAGTGGGGCTGGCGCCAGGAGACGTGGAGCAAGTCA
 CCTTGGCGCTAGGGACCGGAGCCGACAAAGACGGGACCCTGTGCTGGAGGGCGGTGGCCGGAAGAGGG
 GCAGAGGAGGACCCCGCAGGGCATCGGGCTCCTGGCAAAGACCCCTGAGCCGTCCAGTTAAGAGGAAC
 AACCCAAAGTACAGGCGCATCAAACCTTTGATCTATGACGCCCTGGAGAGACCGAGGGGTGGCGCTGC
 TCTACCACGCGCTTGTGTTCTGATTGTCTGGGATGCTTGATTCTGGCCGTGCTCACCCTTTCAAGGA
 GTATGAGACTGTGCTGGAGACTGGCTTTTGTCTGCTGGAACATTTGCTATTTTCATCTTTGGAGCTGAG
 TTTGCTTTGAGGATCTGGGCTGCAGGATGTTGCTGTCGATACAAAGGCTGGCGTGGACGGCTGAAGTTG
 CCAGGAAGCCCTGTGCATGTTGGATATCTTCGTGCTGATTGCTTCTGTGCCAGTGGTTGCCGTGGGAAA
 CCAGGGCAATGTCTGGCTACCTCTCTCGAAGCCTCCGCTTCTGTCAGATCCTGCGCATGCTTCGAATG
 GATAGGAGGGGTGGCACCTGGAAGCTCCTGGGCTCAGCTATCTGTGCCACAGCAAAGAAGTCCATACCCG
 CCTGGTACATCGGCTTCTGACACTCATCTTTCTTCAATTTCTGCTACCTGGTGGAGAAGGATGTGCC
 AGAGATGGATGCCAAGGAGAGGAAATGAAAGAGGAGTTGAGACCTATGCTGATGCCCTGTGGTGGGGC
 CTGATCACACTGGCCACCATTGGTTATGGAGACAAGACACCTAAAACCTGGGAAGGACGCTGATTGCTG
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 GAAGGTTTCAGGAACAGCACCGTCAAGACTTTGAGAAGAGAAGGAAGCCAGCTGCTGAACTCATCCAG
 GCTGCCTGGAGATATTATGCTACCAACCCCAACAGGCTTGACCTGGTGGCAACCTGGAGATTTTATGAAT
 CAGTTGTCTCTTTCCATTCTTCAGAAAGAACAAGTGAAGCAGCAGCCAGCCAAAAGCTGGGTCTCTT
 GGATCGGGTTCGCTTTCTAATCCTCGTGGTAGCAATACTAAAGGAAAGCTATTTACCCCTCTGAATGTA
 GATGCCATAGAAGAAAGCCCTTCCAAAGAGCCAAAGCCGTTGGCTTAAACAATAAAGAGCGTTTCCGCA
 CCGCCTCCGCATGAAAGCCTACGCTTCTGGCAGAGTCTGAAGATGCCGGGACAGGAGACCCCATGAC
 AGAAGACAGGGGCTATGGAATGACTTCTCATTGAAGACATGATCCCCACCTAAAGGCTGCCATCCGA
 GCTGTCAGAATTCTACAATTCGCTGTATAAAAAAAATTCAGGAGACATTGAGCGCTTATGATGTAA
 AAGATGTAATTGAGCAGTATTCTGCTGGACATCTTGACATGCTTTCCAGGATAAAGTACCTTCAGACAAG
 AATAGATATGATTTTACCCCTGGACCTCCATCCACTCCAAAACATAAGAAGTCTCAGAAAGGGTCAGCA
 TTTACCTACCCATCCCAGCAGTCTCCAAGGAATGAACCATATGTAGCCAGGGCAGCCACATCAGAAACTG
 AAGACCAAGCATGATGGGGAAGTTTGTAAAAGTTGAAAGACAGGTTTACGACATGGGGAAGAAACTGGA
 CTTCTCGTGGACATGCACATGCAGCATATGGAGCGTCTGCAGGTGCACGTCACCGAGTACTACCCAACA
 AAGGGGGCCTCCTCCCAGCAGAAGGGGAGAAGAAAGAGGACAACAGGTATTCTGACTTGAAAACCATCA
 TCTGTAACACTCAGAATCAGGCCCCCCGACCCCTACAGCTTCCACCAGGTGCCATCGACAGAGT
 TGGCCCCATGGGTTTTTTGCACATGACCCCGTAAAAGTACCAGAGGGGGACCCAGTTCTACAAGGCT
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 GAACGCTCTCAAGTGGCTTCAGCATCTCCAAGACAGAGATGATTATGTATTTGGCCCCAGTGGGGTT
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 CAGTGGATCCATGCCTATGTCATCTACTGGAGATGGTATTTAGATTCCATATGGACCCCTTCAACAAG
 CCCACT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAAGTTTAA

Protein Sequence: >RR213597 representing NM_031597
 Red=Cloning site Green=Tags(s)

MALEFPGLQPPPPRPVPQALLLPGAAAEKAKRPVGARQMG LKARRAAGAAGGGGGEGGGGGGAANPAG
 GDSAVAGDEERKVLAPGDVEQVTLALGTGADKDG TLLLEGGGREGQRRT PQIGLLAKTPLSRPVKRN
 NAKYRRIQTLIYDALERPRGWALLYHALVFLIVL GCLILAVLTTFFKEYETVSGDWLLLLLETF AIFIFGAE
 FALRIWAAGCCCRYK GWRGLKFARKPLCMLDIFVLIASVPVAVGNQGNVLATSLRSLRFLQILRMLRM
 DRRGGT WKLLGSAICAHSKELITAWYIGFLTLILSSFLVYLVEKDVPEMDAQGEEMKEEFETYADALWWG
 LITLATIGYGDKTPKTWEGR LIAATFSLIGVSFFALPAGILG SGLALKVQEQHRQKHFEKRRKPAAE LIQ
 AAWRYATNP NRLLDLVATWRFYESVVSFPFRKEQLEAAASQKLG LLDVRVLSNPRGSNTKGKLF TPLNV
 DAIEESPSKEPKPVGLNNKERFRTAFRMKAYAFWQSS EDAGTGDPMTEDRGYGNDFLIEDMIPTL KAAIR
 AVRILQFRLYKKKFKETLRPYDVKDVIEQYSAGHL DMLSRIKYLQTRIDMIFTPGPPSTPKHKKSQK GSA
 FTYPSQQSPRNEPYVARAATSETEDQSM MGKFKVVERQVHDMGKKLDFL VDMHMQHMERLQVHVTEYPT
 KGASSPAEGEKEDNRYSDLKTIICNYSESGPPDP PYSFHQVPIDRVGPYGFFAHDPVKL TRGGPSSTKA
 QANLPSSGSTYAERPTVLPILTL LLDSCVSYHSQTE LQGPYSDHISPRQRRSITRSDTPLSLMSVNHEEL
 ERSPSGFSISQDRDDYVFGPSGGSSWMREKRYLAEGETD TDTPFTPSGSMPMSSTGDG ISDSIWTPSNK
 PT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

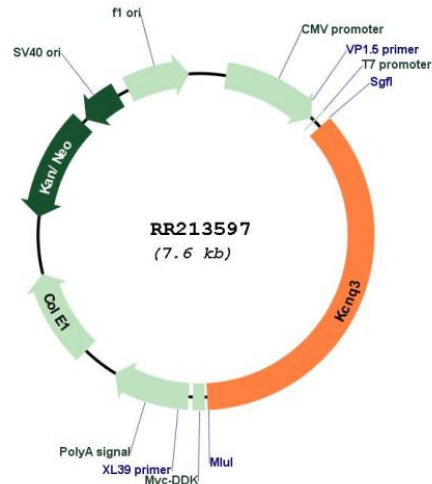
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_031597

ORF Size: 2736 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_031597.4](#), [NP_113785.3](#)

RefSeq Size: 5798 bp
RefSeq ORF: 2739 bp
Locus ID: 29682
Cytogenetics: 7q34
MW: 100.9 kDa
Gene Summary: potassium channel involved in regulating neuronal excitability [RGD, Feb 2006]