

Product datasheet for **RC234832**

KCNQ3 (NM_001204824) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNQ3 (NM_001204824) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNQ3
Synonyms:	BFNC2; EBN2; KV7.3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide
Sequence:**

>RC234832 representing NM_001204824
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGCCTGCAGAACACGCCACGATGTTCTGATTGTCTGGGTGCTTGATTCTGGCTGTCTGACCA
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 TGGAGCCGAGTTTGCTTTGAGGATCTGGGCTGCTGGATGTTGCTGCCGATACAAAGGCTGGCGGGCCGA
 CTGAAGTTTGCCAGGAAGCCCCTGTGCATGTTGGACATCTTTGTGCTGATTGCCTCTGTGCCAGTGGTTG
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Protein Sequence: >RC234832 representing NM_001204824
 Red=Cloning site Green=Tags(s)

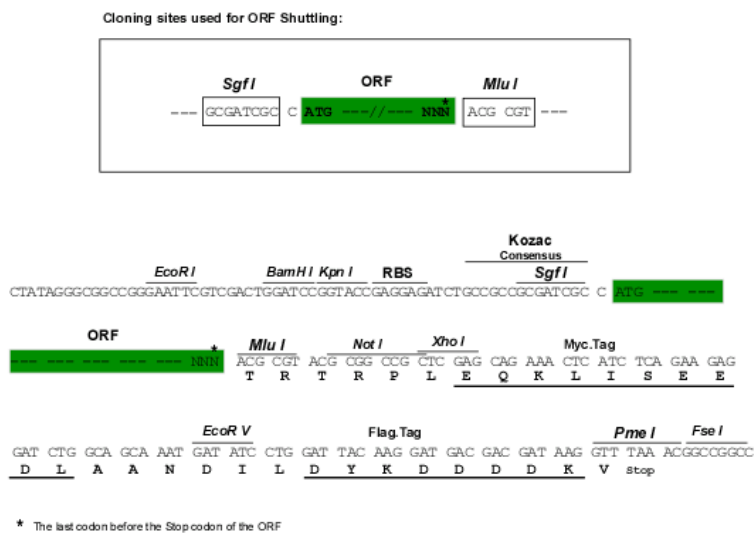
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 FYESVVSFPFFRKEQLEAASSQKLGLLDRVRLSNPRGSNTKGLFTPLNVDAIEESPSKEPKPVGLNNKE
 RFRTAFRMKAYAFWQSSSEDAGTGDPMAEDRGYGNDFPIEDMIPTLKA AIRAVRILQFRLYKKKFKETLRP
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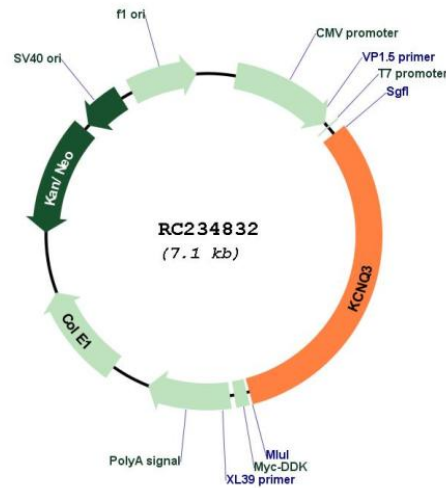
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001204824

ORF Size: 2256 bp

OTI Disclaimer: 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_001204824.1](#), [NP_001191753.1](#)

RefSeq Size: 10717 bp

RefSeq ORF: 2259 bp

Locus ID: 3786

UniProt ID: [O43525](#)

Cytogenetics: 8q24.22

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

MW: 85.3 kDa

Gene Summary: This gene encodes a protein that functions in the regulation of neuronal excitability. The encoded protein forms an M-channel by associating with the products of the related KCNQ2 or KCNQ5 genes, which both encode integral membrane proteins. M-channel currents are inhibited by M1 muscarinic acetylcholine receptors and are activated by retigabine, a novel anti-convulsant drug. Defects in this gene are a cause of benign familial neonatal convulsions type 2 (BFNC2), also known as epilepsy, benign neonatal type 2 (EBN2). Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, May 2014]