

Product datasheet for **RG234832**

KCNQ3 (NM_001204824) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNQ3 (NM_001204824) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KCNQ3
Synonyms:	BFNC2; EBN2; KV7.3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG234832 representing NM_001204824.
 Blue=ORF Red=Cloning site Green=Tag(s)

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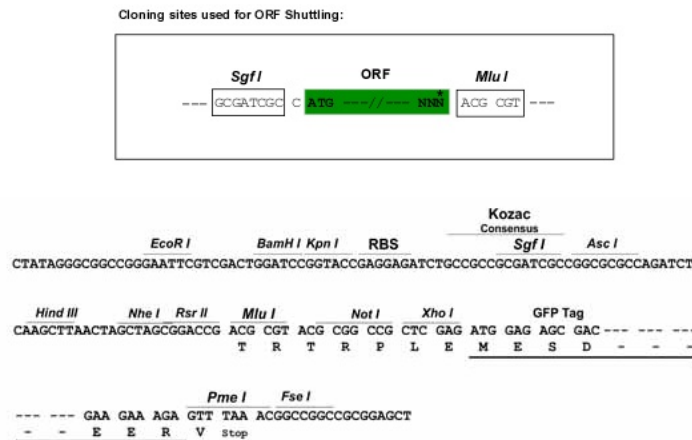
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GGGATGGGATTTCTGATTGATGAGACCCCTTCCAATAAGCCATT
ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
  
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Protein Sequence: >Peptide sequence encoded by RG234832
 Blue=ORF Red=Cloning site Green=Tag(s)

MKPAEHATMFLIVLGLILAVL TTFKEYETVSGDWLLLLLETFAIFIFGAEFALRIWAAGCCCRYKGWGR
 RLKFKARKPLCMLDIFVL IASVPVAVGNQGNV LATSLSRSLRFLQLRLMLRMDRRGGTWKLLGSAICAH
 KELITAWYIGFL TLILSSFLVYLVEKDVPEVDAQGEEMKEEFETYADALWWGLITLATIGYDKTPKTW
 EGRLIAATFSLIGVSFFALPAGILGSLALKVQEQHRQKHFEKRRKPAELIQAAWRYATNPNRIDL
 ATWRFYESVVSFPFRKEQLEAASSQKLLDRVRLSNPRGSNTKGLFTPLNVDAIEESPSKEPKPVG
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 DSVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001204824

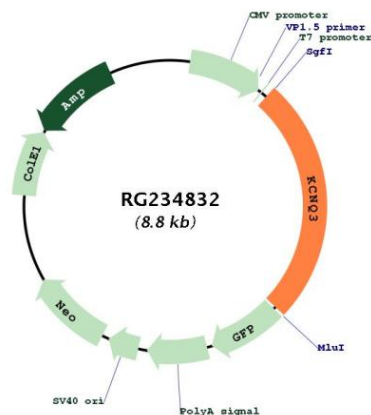
ORF Size: 2256 bp

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:	<ol style="list-style-type: none"> 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:	<u>NM_001204824.2</u>
RefSeq Size:	10717 bp
RefSeq ORF:	2259 bp
Locus ID:	3786
UniProt ID:	<u>O43525</u>
Cytogenetics:	8q24.22
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
MW:	84.8 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]

Product images:



Circular map for RG234832