

Product datasheet for **MG205641**

Kcnab2 (NM_010598) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnab2 (NM_010598) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kcnab2
Synonyms:	F5; I2rf5; Kcnb3; kv-beta-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG205641 representing NM_010598 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTATCCGGAATCAACCACGGGGTCCCCAGCTCGACTCTCCCTGCGGCAGACAGGCTCCCCGGGATGA
TCTACAGTACTCGTTATGGGAGTCCCAAAGACAGCTCCAGTTTTACAGGAATCTGGCAAATCTGGCCT
TCGGGTCTCCTGCCTGGGGCTTGAACATGGGTGACCTTCGGGGCCAGATCACGGATGAGATGGCAGAG
CACCTAATGACCTTGGCCTACGATAATGGCATCAACCTGTTTCGATACGGCGGAGGTCTACGCTGCTGGAA
AAGCTGAAGTGGTATTAGGGAACATCATTAAAGAAGAAGGGATGGAGACGGTCCAGCCTTGTATCACCAC
CAAGATCTTCTGGGGTGGAAAAGCGGAGACTGAGAGAGGCCTTTCCAGGAAGCACATAATTGAAGGACTG
AAAGCGTCCCTGGAGCGGCTGCAGCTGGAGTACGTGGATGTGGTTTTTGGCAACCGCCAGACCCCAACA
CGCCCATGGAAGAGACCGTGCAGGCGCATGACCCATGTTCATCAACCAGGGGATGGCCATGACTGGGGCAC
ATCAGCTGGAGCTCCATGGAGATCATGGAGGCCACTCGGTGGCTCGGCAGTTCAACCTGATCCCGCCC
ATCTGCGAGCAAGCGGAATACATGTTCCAGAGGGAGAAGGTGGAGGTCCAGCTGCCAGAGCTGTTCC
ACAAGATAGGAGTAGGTGCCATGACCTGGTCCCCTCTGGCGTGGGCATCGTCTCAGGGAAGTATGACAG
CGGGATCCCACCCTACTCCAGAGCCTCCCTGAAGGGCTACCAGTGGTTGAAGGACAAGATCCTGAGTGAG
GAGGGTCGCCCGCCAGCAGGCCAAGCTGAAGGAACTGCAGGCCATTGCCGAACCGCTGGGTCACCCCTAC
CCAGCTGGCCATAGCCTGGTGCCTGAGGAATGAGGGTGTGAGCTCCGTGCTTCTGGGTGCTTCCAATGC
AGAACAATTATGGAGAACATTGGAGCAATACAGTCCCTTCCAAAATTGTCGTCTTCCATCGTCCACGAG
ATCGACAGCATTCTGGCAATAAACCTACAGCAAAAAGGACTATAGATCC

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

Protein Sequence: >MG205641 representing NM_010598
 Red=Cloning site Green=Tags(s)

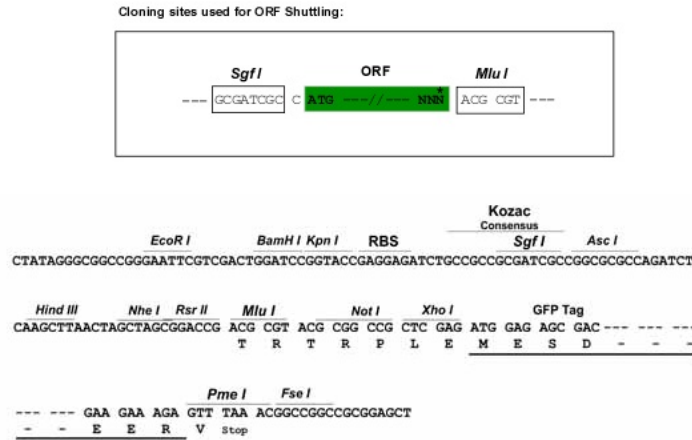
MYPESTTGSPARLSRLRQTGSPGMIYSTRYGSPKRQLQFYRNLGKSGLRVSLCLGLGTWVTFGGQITDEMAE
 HLMTLAYDNGINLFDTAEVYAAGKAEVVLGNIKKGWRRSSLVITTKIFWGGKAETERGLSRKHIEGL
 KASLERLQLEYVDVVFANRPDPNTPMEETVRAMTHVINQGMAMYGTSRWSSMEIMEAYSVARQFNLIPP
 ICEQAEYHMFQREKVEVQLPELFHKIGVGAMTWSPLACGIVSGKYDSGIPPYSRASLKG YQWLKDKILSE
 EGRRQAKLQIAERLGCTLPQLAIWCLRNEGVSSVLLGASNAEQLMENIGAIQVLPKLS SSI VHE
 IDSILGNKPYSKKDYRS

TRTRPLE - GFP Tag - V

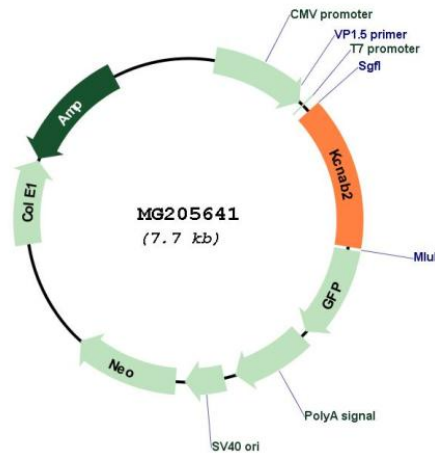
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_010598

ORF Size:	1101 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	NM_010598.4
RefSeq Size:	3571 bp
RefSeq ORF:	1104 bp
Locus ID:	16498
UniProt ID:	P62482
Cytogenetics:	4 83.08 cM

Gene Summary:

Cytoplasmic potassium channel subunit that modulates the characteristics of the channel-forming alpha-subunits (PubMed:8576199). Contributes to the regulation of nerve signaling, and prevents neuronal hyperexcitability (PubMed:11825900, PubMed:21209188). Promotes expression of the pore-forming alpha subunits at the cell membrane, and thereby increases channel activity (By similarity). Promotes potassium channel closure via a mechanism that does not involve physical obstruction of the channel pore (PubMed:8576199). Modulates the functional properties of KCNA4 (By similarity). Modulates the functional properties of KCNA5 (PubMed:8576199). Enhances KCNB2 channel activity (PubMed:8824288). Modulates the functional properties of KCNA5 (PubMed:8576199). Binds NADPH and has NADPH-dependent aldoketoreductase activity (By similarity). Has broad substrate specificity and can catalyze the reduction of methylglyoxal, 9,10-phenanthrenequinone, prostaglandin J2, 4-nitrobenzaldehyde, 4-nitroacetophenone and 4-oxo-trans-2-nonenal (in vitro) (By similarity). [UniProtKB/Swiss-Prot Function]