

Product datasheet for MR229515

Kcnab2 (NM_001252656) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnab2 (NM_001252656) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcnab2
Synonyms:	F5; I2rf5; Kcnb3; kv-beta-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR229515 representing NM_001252656 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTATCCGGAATCAACCACGGGGTCCCCAGCTCGACTCTCCCTGCGGCAGACAGGCTCCCCGGGATGA
TCTACAGTACTCGTTATGGGAGTCCCAAAGACAGCTCCAGTTTTACAGGAATCTGGGCAAATCTGGCCT
TCGGGTCTCTGCCTGGGCTTGAACATGGGTGACCTTCGGGGCCAGATCACGGATGAGATGGCAGAG
CACCTAATGACCTTGGCCTACGATAATGGCATCAACCTGTTTCGATACGGCGGAGGTCTACGCTGCTGGAA
AAGCTGAAGTGGTATTAGGGAACATCATTAAAGAAGAAGGGATGGAGACGGTCCAGCCTTGTATCACCAC
CAAGATCTTCTGGGGTGGAAAAGCGGAGACTGAGAGAGGCCTTTCAGGAAGCACATAATTGAAGGACTG
AAAGCGTCCCTGGAGCGGCTGCAGCTGGAGTACGTGGATGTGGTTTTTGGCAACCGCCAGACCCCAACA
CGCCCATGGAAGAGACCGTGCAGGCGCATGACCCATGTATCAACCAGGGGATGGCCATGTACTGGGGCAC
ATCACGCTGGAGCTCCATGGAGATCATGGAGGCCTACTCGGTGGCTCGGCAGTTCAACCTGATCCCGCCC
ATCTGCGAGCAAGCGGAATACATGTTCCAGAGGGAGAAGGTGGAGGTCCAGCTGCCAGAGCTGTTCC
ACAAGATAGGAGTAGGTGCCATGACCTGGTCCCCTCTGGCGTGCAGCATCGTCTCAGGGAAGTATGACAG
CGGGATCCCACCCTACTCCAGAGCCTCCCTGAAGGGCTACCAGTGGTTGAAGGACAAGATCCTGAGTGAG
GAGGGTGCAGCCAGCAGGCCAAGCTGAAGGAACTGCAGGCCATTGCCGAACCGCTGGGTCACCCCTAC
CCAGCTGGCCATAGCCTGGTGCCTGAGGAATGAGGGTGTGAGCTCCGTGCTTCTGGGTGCTTCCAATGC
AGAACAATTATGGAGAATTGAGGCAATACAGTCTTCCAAAATTGTCGTCTTCCATCGTCCACGAG
ATCGACAGCATTCTGGGCAATAAACCTACAGCAAAAAGGACTATAGATCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR229515 representing NM_001252656
 Red=Cloning site Green=Tags(s)

MYPESTTGSPARLSLRQTGSPGMIYSTRYGSPKRQLQFYRNLGKSGLRVSLGLGTWVTFGGQITDEMAE
 HLMTLAYDNGINLFDTAEVYAAGKAEVVLGNIKKKGWRRSSLVITTKIFWGGKAETERGLSRKHIEGL
 KASLERLQLEYVDVVFANRPDPNTPMEETVRAMTHVINQGMAMYWGTSRWSSMEIMEAYSVARQFNLIIPP
 ICEQAEYHMFQREKVEVQLPELFHKIGVGAMTWSPLACGIVSGKYDSGIPPYSRASLKGQWLKDKILSE
 EGRRQAKLKELQAIARLQCTLPQLAIWCLRNEGVSSVLLGASNAEQLMENIGAIQVLPKLSSSIVHE
 IDSILGNKPYSKKDYRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001252656

ORF Size: 1101 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_001252656.2](#)

RefSeq Size: 3633 bp

RefSeq ORF: 1104 bp

Locus ID: 16498

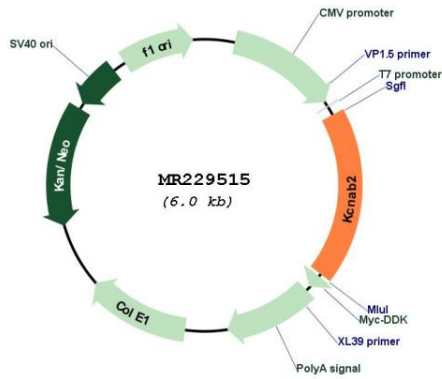
UniProt ID: [P62482](#)

Cytogenetics: 4 83.08 cM

MW: 41 kDa

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]

Product images:



Circular map for MR229515