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Product datasheet for MR229444

Kcnab2 (NM_001252654) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnab2 (NM_001252654) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcnab2
Synonyms:	F5; I2rf5; Kcnb3; kv-beta-2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR229444 representing NM_001252654 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGTATCCGGAATCAACCACGGGGTCCCCAGCTCGACTCTCCCTGCGGCAGACAGGCTCCCCCGGGATGA TCTACAGGAATCTGGGCAAATCTGGCCTTCGGGTCTCCTGCCTGGGGCTTGGAACATGGGTGACCTTCGG GGGCCAGATCACGGATGAGATGGCAGAGCACCTAATGACCTTGGCCTACGATAATGGCATCAACCTGTTC GATACGGCGGAGGTCTACGCTGCTGGAAAAGCTGAAGTGGTATTAGGGAACATCATTAAGAAGAAGGGAT GGAGACGGTCCAGCCTTGTCATCACCACCAAGATCTTCTGGGGTGGAAAAGCGGAGACTGAGAGAGGCCT TTCCAGGAAGCACATAATTGAAGGACTGAAAGCGTCCCTGGAGCGGCTGCAGCTGGAGTACGTGGATGTG GTTTTTGCCAACCGCCCAGACCCCAACACGCCCATGGAAGAGACCGTGCGGGCCATGACCCATGTCATCA ACCAGGGGATGGCCATGTACTGGGGCACATCACGCTGGAGCTCCATGGAGATCATGGAGGCCTACTCGGT GGCTCGGCAGTTCAACCTGATCCCGCCCATCTGCGAGCAAGCGGAATATCACATGTTCCAGAGGGAGAAG GTGGAGGTCCAGCTGCCAGAGCTGTTCCACAAGATAGGAGTAGGTGCCATGACCTGGTCCCCTCTGGCGT GCGGCATCGTCTCAGGGAAGTATGACAGCGGGATCCCACCCTACTCCAGAGCCTCCCTGAAGGGCTACCA GTGGTTGAAGGACAAGATCCTGAGTGAGGAGGGTCGCCGCCAGCAGGCCAAGCTGAAGGAACTGCAGGCC ATTGCCGAACGCCTGGGCTGCACCCTACCCCAGCTGGCCATAGCCTGGTGCCTGAGGAATGAGGGTGTCA GCTCCGTGCTTCTGGGTGCTTCCAATGCAGAACAACTTATGGAGAACATTGGAGCAATACAGGTCCTTCC AAAATTGTCGTCTTCCATCGTCCACGAGATCGACAGCATTCTGGGCAATAAACCCTACAGCAAAAAGGAC TATAGATCC ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

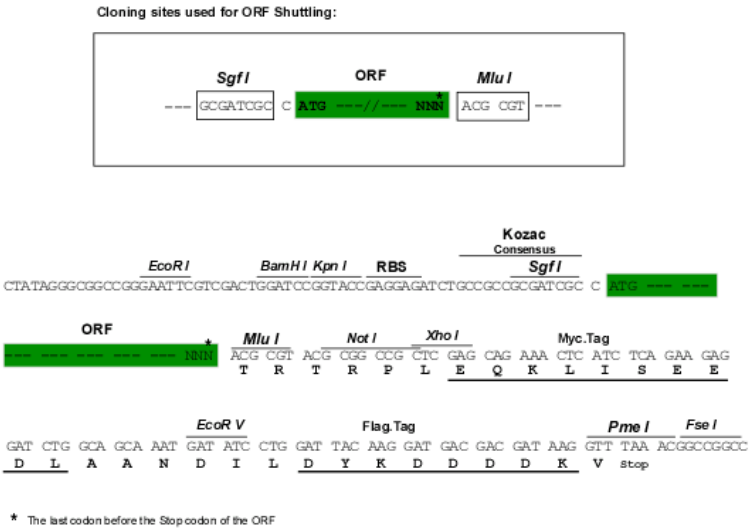
>MR229444 representing NM_001252654
Red=Cloning site Green=Tags(s)

MYPESTTGSPARLSLRQTGSPGMIYRNLGKSGLRVSCLGLGTWVTFGGQITDEMAEHLMTLAYDNGINLF
DTAEVYAAGKAEVVLGNIIKKKGWRRSSLVITTKIFWGGKAETERGLSRKHIIEGLKASLERLQLEYVDV
VFANRPDPNTPMEETVRAMTHVINQGMAMYWGTSRWSSMEIMEAYSVARQFNLIPPICEQAEYHMFQREK
VEVQLPELFHKIGVGAMTWSPLACGIVSGKYDSGIPPYSRASLKGYQWLKDKILSEEGRRQQAKLKELQA
IAERLGCTLPQLAIAWCLRNEGVSSVLLGASNAEQLMENIGAIQVLPKLSSSIVHEIDSILGNKPYSKKD
YRS

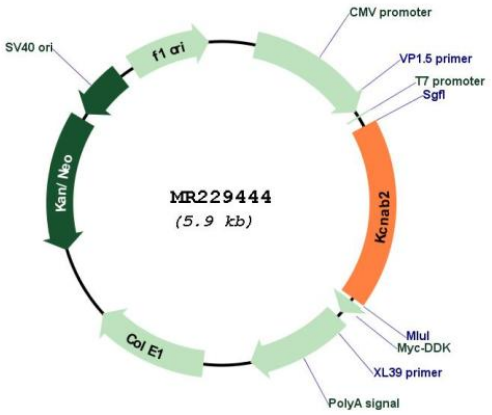
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001252654

ORF Size:	1059 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_001252654.2
RefSeq Size:	3562 bp
RefSeq ORF:	1062 bp
Locus ID:	16498
Cytogenetics:	4 83.08 cM
MW:	39.8 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]