

## Product datasheet for **MR229445**

### **Kcnab2 (NM\_001252655) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Kcnab2 (NM\_001252655) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Kcnab2  
**Synonyms:** F5; l2rf5; Kcnb3; kv-beta-2  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >MR229445 representing NM\_001252655  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTATCCGGAATCAACCACGGGGTCCCCAGCTCGACTCTCCCTGCGGCAGACAGGCTCCCCGGGATGA  
TCTACAGGAATCTGGGCAAATCTGGCCTTCGGGTCTCCTGCCTGGGGCTTGAACATGGGTGACCTTCGG  
GGCCAGATCACGGATGAGATGGCAGAGCACCTAATGACCTTGGCCTACGATAATGGCATCAACCTGTT  
GATACGGCGGAGGTCTACGCTGCTGAAAAAGCTGAAGTGGTATTAGGGAACATCATTAAAGAAGGGAT  
GGAGACGGTCCAGCCTTGTTCATACCACCAAGATCTTCTGGGGTGGAAAAAGCGGAGACTGAGAGAGGCC  
TTCCAGGAAGCACATAATTGAAGGACTGAAAGCGTCCCTGGAGCGGCTGCAGCTGGAGTACGTGGATGTG  
GTTTTTGCCAACCGCCAGACCCCAACACGCCCATGGAAGAGACCGTGCAGGGCCATGACCCATGTATCA  
ACCAGGGGATGGCCATGTACTGGGGCACATCACGCTGGAGCTCCATGGAGATCATGGAGGCTACTCGGT  
GGCTCGGCAGTTCAACCTGATCCCGCCATCTGCGAGCAAGCGGAATATCACATGTTCCAGAGGGAGAAG  
GTGGAGGTCCAGCTGCCAGAGCTGTTCCACAAGATAGGAGTAGGTGCCATGACCTGGTCCCCTCTGGCGT  
GCGGCATCGTCTCAGGAAGTATGACAGCGGGATCCCACCTACTCCAGAGCCTCCCTGAAGGGCTACCA  
GTGGTTGAAGGACAAGATCCTGAGTGAGGAGGGTCCCGCCAGCAGGCCAAGCTGAAGGAACTGCAGGCC  
ATTGCCGAACGCCTGGGCTGCACCTACCCAGCTGGCCATAGCCTGGTCCCTGAGGAATGAGGGTGTCA  
GCTCCGTGCTTCTGGGTGCTTCCAATGCAGAACTTATGGAGAATTGGAGCAATACAGGTCCTTCC  
AAAATTGTCGTCTCCATCGTCCACGAGATCGACAGCATTCTGGGCAATAAACCTACAGCAAAAAGGAC  
TATAGATCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR229445 representing NM\_001252655  
 Red=Cloning site Green=Tags(s)

MYPESTTGSPARLSLRQTGSPGMIYRNLGKSGLRVSCGLGTWVTFGGQITDEMAEHLMTLAYDNGINLF  
 DTAEVYAAGKAEVVLGNIKKKGWRRSSLVITTKIFWGGKAETERGLSRKHIEGLKASLERLQLEYVDV  
 VFANRPDPNTPMEETVRAMTHVINQGMAMYWGTSRWSSMEIMEAYSVARQFNLIPIICEQAEYHMFQREK  
 VEVQLPELFHKIGVGAMTWSPLACGIVSGKYDSGIPPYSRASLKG YQWLKDKILSEEGRRQAKLKELQA  
 IAERLGC TLPQLATAIACLNRNEGVSSVLLGASNAEQLMENIGAIQVLPKLS SSI VHEIDSILGNKPY SKKD  
 YRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

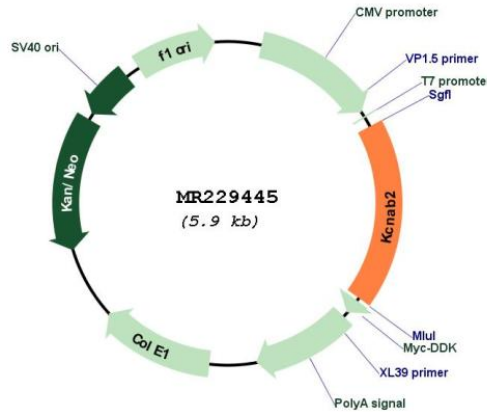
**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001252655

<b>ORF Size:</b>	1059 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001252655.2</a>
<b>RefSeq Size:</b>	3591 bp
<b>RefSeq ORF:</b>	1062 bp
<b>Locus ID:</b>	16498
<b>Cytogenetics:</b>	4 83.08 cM
<b>MW:</b>	39.8 kDa
<b>Gene Summary:</b>	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]