

## Product datasheet for **MR227654**

### **Kcnn2 (NM\_080465) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kcnn2 (NM_080465) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcnn2
Synonyms:	bc; fri; KCa2.2; SK2; SKCA2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR227654 representing NM\_080465  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGCAGCTGCAGGTACAACGGGGCGTCATGCGTCCGCTCAGCAACTTGAGCTCGTCCCGCCGAACC  
 TGCAGGAGATGGACTCCGAGGCTCAGCCCTGCAGCCCCCGCTCCGTAGGAGGAGGTGGTGGTGC  
 GTCCTCCCCGTCTGCTGCCGCCGCCCTCATCCTCAGCCCCGGAGATCGTGGTGTCTAAGCCGGAGCAC  
 AACAACTTAACAACCTGGCGCTCTACGGGACTGGCGGGGAGGCAGCACCCGGAGCGCGCGCGCGCA  
 GCGGGCATGGCAGCAGCAGCGGCACCAAGTCCAGCAAAAAGAAGAACCAGAACATCGGCTACAAGCTGGG  
 CCATCGGCGGCCCTGTTTGAGAAGCGCAAGCGGCTCAGCGACTATGCGCTTATCTTCGGCATGTTCCGGC  
 ATCGTGGTTATGGTCATTGAGACCGAGCTGTCTGGGGCGCTACGACAAGGCGTGTATTCTTTAG  
 CTCTGAAATGCCTTATCAGTCTCTCCACGATCATCTGCTGGTCTGATCATCGTGTACCACGCCAGGGA  
 AATACAGTTATTCATGGTGGACAATGGAGCAGATGACTGGAGAATAGCCATGACTTATGAGCGTATTTTC  
 TTCATCTGCTTGGAAATACTGGTGTGTGCTATCCATCCCATACCTGGGAATTATACGTTACATGGACAG  
 CCCGGCTTGCCCTTCTCTATGCCCCCTCCAACAACCACCGCAGATGTGGATATTATTTTATCTATACCAAT  
 GTTCTTAAGGCTCTATCTGATTGCCAGAGTCATGCTATTACATAGCAAATTTTCACCGATGCCTCGTCT  
 AGAAGCATTGGGGCACTTAATAAGATAAACTTCAATACGCGTTTTGTTATGAAGACTTTAATGACTATCT  
 GCCCAGGAACTGTGCTCTTGGTTTTAGTATCTCATTATGGATAATTGCCGCATGGACTGTCCGAGCTTG  
 TGAAAGGTACCATGATCAACAGGATGCTACTAGCAACTCCTTGGAGCAATGTGGTTGATATCAATAACT  
 TTTCTCTCCATTGGTTATGGTGACATGGTACCCAACACATACTGTGGGAAAGGAGTCTGCTTCTTACTG  
 GAATCATGGGTGCAGGTTGCACAGCCCTGGTGGTAGCCGTAGTGGCAAGAAAGCTAGAAGTTACCAAAGC  
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 GAAAGCATCAACGGAAATTTCTGCAAGCTATTCATCAATTAAGAAGTGTGAAGATGGAACAGAGGAACT  
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 TTGAATGAAAGGAGTGAAGACTTTGAGAAAAGGATCGTACCCTGGAAACAAAAC TAGAGACTTTGATTG  
 GTAGCATTCATGCCCTCCCTGGGCTAATCAGCCAGACCATCAGACAGCAGCAAGGGACTTCATTGAGAC  
 ACAGATGGAGAACTACGACAAGCATGTCTCTACAATGCTGAGCGCTCCCGTCTCGTCCAGGAGCGCG  
 CGGTCTCTCCACAGCGCCACCAACTTCATCAGAGAGTAGC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTAA

**Protein Sequence:**

>MR227654 representing NM\_080465  
 Red=Cloning site Green=Tags(s)

MSSCRYNGVMRPLSNLSSRRNLQEMDSEAQPLQPPASVVGGGGASSPSAAAAAASSSAPEIVVSKPEH  
 NNSNNLALYGTGGGGSTGGGGGSGHGSSSGTKSSKKNQNIQYKLGHRRALFEKRKRLSDYALIFGMFG  
 IVVMVIEITELSWGAYDKASLYSLALKCLISLSTIILLGLIIVYHAREIQLFMVDNGADDWRIAMTYERIF  
 FICLEILVCAIHPGNYTFTWTARLAFSYAPSTTTADVDIILSIPMFLRLYL IARVMLLHSKLFTDASS  
 RSIGALNKINFNTRFVMKTLMTICPGTVLLVFSISLWIIAAWTVRACERYHDQQDVTSNFLGAMWLISIT  
 FLSIGYDMPNTYCGKGVCLLTGIMGAGCTALVVAVVARKLELTKAEKHVHNFMMDTQLTKRVKNAAN  
 VLRETWLIYKNTKLVKKIDHAKVRKHQRKFLQAIHQLRSVKMEQRKLNQANTLVDLAKTQNIYMDMISD  
 LNERSEDFEKRIVTLETKLETLIGSIHALPGLISQTIRQQQDFIETQMENYDKHVSYNAERSRSSRRR  
 RSSSTAPPTSSESS

SGP**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

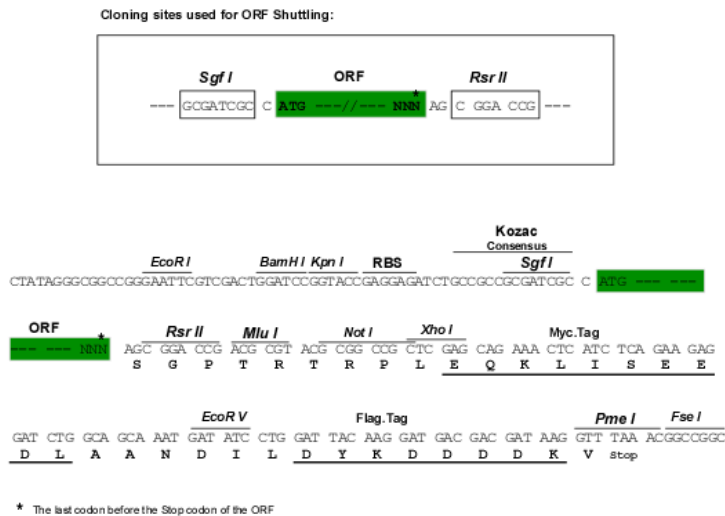
**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9015\\_a06.zip](https://cdn.origene.com/chromatograms/mm9015_a06.zip)

**Restriction Sites:**

Sgfl-RsrII

Cloning Scheme:



ACCN: NM\_080465

ORF Size: 1722 bp

OTI Disclaimer: 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

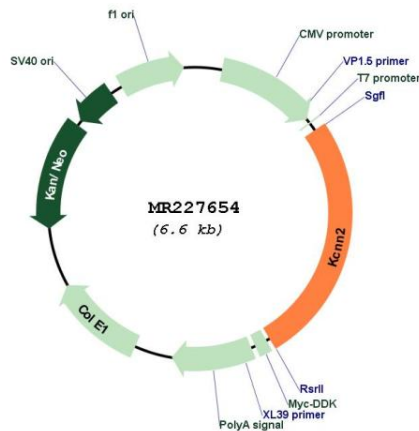
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_080465.2, NP\\_536713.1](#)  
**RefSeq Size:** 2046 bp  
**RefSeq ORF:** 1725 bp  
**Locus ID:** 140492  
**UniProt ID:** [P58390](#)  
**Cytogenetics:** 18 B3- C  
**MW:** 63.9 kDa

**Gene Summary:** Forms a voltage-independent potassium channel activated by intracellular calcium. Activation is followed by membrane hyperpolarization. Thought to regulate neuronal excitability by contributing to the slow component of synaptic afterhyperpolarization. The channel is blocked by apamin.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR227654