

## Product datasheet for **MR226841**

### **Kcnn4 (NM\_001163510) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kcnn4 (NM_001163510) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcnn4
Synonyms:	IK1; IKCA1; KCa3.1; KCA4; mIKCa1; SK4; SKCas
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR226841 representing NM\_001163510  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGCGGGGAGCTGGTACTGGCCTGGGGCCCTGAGACGGAGAAAGCGCCTGCTGGAGCAGGAGAAGA  
 GGGTGGCCGGCTGGGCGTTGGTCTGGCGGGAAGTGGCATCGGACTCATGGTTCTGCACGCTGAGATGTT  
 GTGGTTCTGGGCTGCAAGTGGGTGCTGTACCTGCTCCTGGTTAAGTGTGGTGGATCACCCTGTCCACTGCC  
 TTCTCTTTGTCTTATTGTGGTCTTCCATGCCAAGGAGGTCCAGCTGTTGATGACTGACAACGGGCTCC  
 GGGACTGGCGCTGGCGCTGACCCGGCGGCAGGTGGCGCAGATCCTGCTGGAGCTGTTGGTGTGCGGGGT  
 GCACCCGGTGCCCTACGGAGCCCGCACTGCGCCCTGGCGGGGAGGCCACCGACGCGCAGCCCTGGCCG  
 GGTTTCTGGGCGAAGGCGAGGGCTGTGTCCCTGGCCATGCTCCTGCGTCTCTACCTGGTCCCGCGG  
 CGGTGCTGCTGCGCAGCGGGTCTGCTCAACGCGTCTACCGCAGCATCGGGGCGCTCAACCAAGTCCG  
 CTTCCGCCACTGGTTCGTGGCCAAGCTGTACATGAACACGCACCCGGTGCCTGCTGCTGGGCCTCAGC  
 CTGGGTCTCTGGCTACCCACAGCTTGGGTGCTGTCTGTGGCTGAGAGGCAGGCTGCAATGCCACGGGGC  
 ACCTCACAGACACTGTGGCTGATTCCGATCACATTCCTGACCATGGCTATGGGGACGTGGTACCTGG  
 CACCATGTGGGCAAGATTGCTGCCTGTGCACCGGAGTCATGGGGTCTGCTGCACAGCTCTCCTGGT  
 GCTGTGGTGGCTCGGAAGCTGGAGTTCAACAAGGCGGAGAAACACGTGCACAACCTCATGATGGACATCC  
 ATTATGCCAAAGAGATGAAGGAGTCAGCGGCGCGGCTGCTGCAGGAAGCTGGATGTAACAAGCACAC  
 TCGAAGGAAGGACTCCCGGGTCCCGCAGACATCAGCGCAAGATGCTGGCCGCCATCCACAGTTCGCG  
 CAGGTACGGCTGAAACACCGGAAGCTCCGGGAACAAGTGAATTCATGGTGGACATCTCCAAGATGCACA  
 TGATCCTGTGCGACCTGCAGCTGGGTCTCAGCTCCTCGCACCGTCCCTGGAGAAGAGAATCGACGGTCT  
 GGCAGGAAGCTGGATGCCCTGACAGAGCTGCTCGGCACTGCTCTGCAGCAACAGCAGCTACCAGAACCC  
 AGTCAGGAGGCCACA

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR226841 representing NM\_001163510  
 Red=Cloning site Green=Tags(s)

MGGELVTGLGALRRRKRLLEQEKRVAAGWLVLAGTGIGLMVLHAEMLWFLGCKWVLYLLLVKCLITLSTA  
 FLLCLIVVFHAKEVQLFMTDNGLRDWRVALTRRQVAQILLELLVCGVHPVPLRSPHCALAGEATDAQWP  
 GFLGEGEALLSLAMLLRLLYLVPRAVLLRSGVLLNASYRSIGALNQVFRHWFVAKLYMNHGPRLLGLT  
 LGLWLTAWVLSVAERQAVNATGHLDTLWLIPTFLTIGYGDVVPGMTMWGKIVCLCTGVMGVCCTALLV  
 AVVARKLEFNKAEKHVHFMMDIHYAKEMKESAAARLLQEAWMYKHTRRKDSRAARRHQRKMLAAIHTFR  
 QVRLKHKRLREQVNSMVDISKMHMILCDLQLGLSSSHRALEKRIDGLAGKLDALTELLGTALQQQLPEP  
 SQEAT

SGP**TRTRRLEQKLISEEDLAANDILDYKDDDDK**V

**Restriction Sites:**

SgfI-RsrII

**Cloning Scheme:**


**ACCN:** NM\_001163510

**ORF Size:** 1275 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\\_001163510.1](#), [NP\\_001156982.1](#)

**RefSeq Size:** 2041 bp

**RefSeq ORF:** 1278 bp

**Locus ID:** 16534

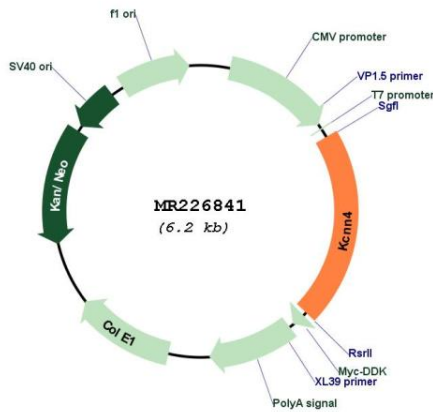
**UniProt ID:** [O89109](#)

**Cytogenetics:** 7 A3

**MW:** 48.2 kDa

**Gene Summary:** Forms a voltage-independent potassium channel that is activated by intracellular calcium (PubMed:9705284). Activation is followed by membrane hyperpolarization which promotes calcium influx. Required for maximal calcium influx and proliferation during the reactivation of naive T-cells (PubMed:20884616). Plays a role in the late stages of EGF-induced macropinocytosis (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR226841