

Product datasheet for **MG226841**

Kcnn4 (NM_001163510) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnn4 (NM_001163510) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kcnn4
Synonyms:	IK1; IKCA1; KCa3.1; KCA4; mIKCa1; SK4; SKCas
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG226841 representing NM_001163510 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCGGGGAGCTGGTACTGGCTGGGGCCCTGAGACGGAGAAAGCGCCTGCTGGAGCAGGAGAAGA
GGGTGGCCGGCTGGGCGTTGGTGTGGCGGAACTGGCATCGGACTCATGGTTCTGCACGCTGAGATGTT
GTGGTTCTGGGCTGCAAGTGGGTGCTGTACCTGCTCCTGGTTAAGTGTTTATGATCACCTGTCCACTGCC
TTCTCTTTGTCTTATTGTGGTCTTCCATGCCAAGGAGGTCCAGCTGTTTACTGACTGACAACGGGCTCC
GGGACTGGCGCTGGCGCTGACCCGGCGCAGGTGGCGCAGATCCTGCTGGAGCTGTTGGTGTGCGGGT
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CGGTGCTGCTGCGCAGCGGGTCTGCTCAACGCGTCTACCGCAGCATCGGGGCGCTCAACCAAGTCCG
CTTCCGCCACTGGTTCGTGGCCAAGCTGTACATGAACACGCCACCCGGTGCCTGCTGCTGGCCTCACG
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CACCATGTGGGCAAGATTGTCTGCCTGTGCACCGGAGTCATGGGGTCTGCTGCACAGCTCTCCTGGT
GCTGTGGTGGCTCGAAGCTGGAGTTCAACAAGCGGAGAAACACGTGCACAATTCATGATGGACATCC
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CAGGTACGGCTGAAACACCGGAAGCTCCGGGAACAAGTGAATTCCATGGTGGACATCTCCAAGATGCACA
TGATCCTGTGCGACCTGCAGCTGGGTCTCAGCTCCTCGCACCGTGCCTGGAGAAGAGAATCGACGGTCT
GGCAGGAAAGCTGGATGCCCTGACAGAGCTGCTCGGCACTGCTCTGCAGCAACAGCAGCTACCAGAACCC
AGTCAGGAGGCCACA

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG226841 representing NM_001163510
Red=Cloning site Green=Tags(s)

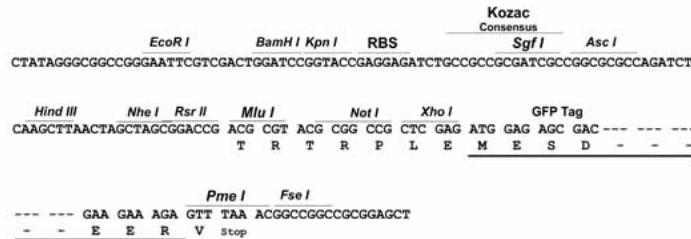
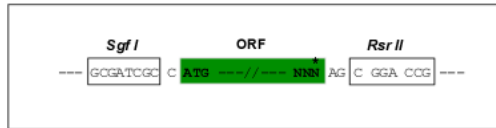
MGGELVTGLGALRRRKRLLEQEKRVAAGWALVLAGTGIGLMVLHAEMLWFLGCKWVLYLLLVKCLITLSTA
 FLLCLIVVFHAKEVQLFMTDNGLRDWRVALTRRQVAQILLELLVCGVHPVPLRSPHCALAGEATDAQPWP
 GFLGEGEALLSLAMLLRLLYLVPRAVLLRSGVLLNASYRSIGALNQVRFHWFVAKLYMNTHPGRLLGLT
 LGLWLTTAWVLSVAERQAVNATGHLTDTLWLIPIITFLTIGYGDVVPGTMWGKIVCLCTGVMGVCCTALLV
 AVVARKLEFNKAEKHVHNFMMDIHYAKEMKESAARLLQEAWMYKHTRRKDSRAARRHQKMLAAIHTFR
 QVRLKHKRLREQVNSMVDISKMMHILCDLQLGLSSSHRALEKRIDGLAGKLDALTELLGTALQQQQLPEP
 SQEAT

SGPTRRRLE – GFP Tag – V

Restriction Sites: SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



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

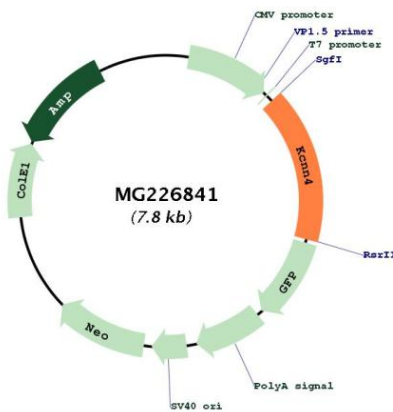
Locus ID: 16534

UniProt ID: [O89109](#)

Cytogenetics: 7 A3

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 MG226841