

Product datasheet for **MR209320**

Kcna5 (NM_145983) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcna5 (NM_145983) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcna5
Synonyms:	Kv1.5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR209320 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGATCTCCCTGGTGCCCATGGAGAACGGCAGTGCCATGACCCTCAGAGGAGGAGGGGAGGCAGGGG
 CAAGCTGTGTGCAGAGCCCAGGGGAGAGTGTGGGTGCCCTCCGACGGCTGGACTCAATAATCAGTCCAA
 AGAAACATCACCGAGGAGCGCGCCACACACGAGGATGCGGGCCAGGGTGGGAGGCCCTTTCGCCCTATG
 CCTCAGGAGCTGCCACAGCCTAGAAGGCCATCTGCTGAGGATGAGGAGGGAGAAGGCGACCTGGCCTGG
 GCACAGTGGAGGAGACCAGGCTCCTCAGGACTCAGGATCACTCCATCACAGCGGGTCTCATAAACAT
 CTCGGGTTTGGCCTTTGAGACGCAGCTGGGCACCCTGGCGCAGTTTCCAAACACCCTCTGGGGACCCA
 GTCAAACGCCTGCGCTACTTCGATCCCTTGAGAAATGAGTACTTCTCGACCGCAACCGGCTAGCTTCG
 ATGGCATTGTACTACTACCAGTCTGGGGCCGCTGCGCAGGCCGGTCAATGTCTCCCTGGATGTGTT
 TGCAGATGAGATCCGCTTTTACCAGCTGGGGACGAGGCCATGGAGCGCTTCCGGGAGGATGAAGGCTTC
 ATCAAGGAAGAGGAGAAGCCCCTGCCCCGAATGAGTTCAGCGCCAGGTGTGGCTTATCTTCAATAACC
 CAGAAAGCTCTGGGTGAGCAAGAGCCATTGCCATCGTGTCCGTCTTGGTATTCTCATCTATCATCAC
 CTTCTGCTGGAGACTCTGCCTGAGTTCAGGGATGAACGGGAGCTGTACGCCACCCCCAGTGCCGCCG
 CAGCCCCAGCCCCTGCCCCAGGGGCAATGGCAGTGGCTCTGGTGTCTTCTCTGGCCCCACAGTGG
 CTCCGCTCCTGCCTAGGACACTGGCTGACCATTCTTCATCGTGGAGACCACATGTGTGATCTGGTTCAC
 TTTTGAGCTGCTGTGCGTTTCTTGTCTGCCCAAGGAGAATTCTCTCGGAATATTATGAACATC
 ATTGATATTGGCCATCTCCCTACTTTATCACCCCTGGGACCGAGCTGGCAGAGCAACAACCCAGGGG
 GTGGTGGTCAGAATGGGCAGCAGGCCATGTCCTAGCCATCCTCAGGGTATCCGCTGGTCCGGGTGT
 CCGAATCTTCAAGCTCTCCCGCACTCCAAGGGACTGCAGATCCTGGGTAAAGACCTTACAGGCGTCCATG
 CGGGAGCTCGGGTGTCTATCTTCTTCTTTCATCGGAGTATCCTCTTCTCCAGCGCTGTCTACTTTCG
 CAGAGGCAGACAATCAGGGGTGCGCACTTCTCCAGTATCCCGGATGCATTCTGGTGGGCGAGTACTCAT
 GACCACTGTAGGCTACGGGGACATGAGGCCATCACTGTAGGGGGCAAGATTGTGGGCTCACTGTGCGCC
 ATAGCTGGGGTCTCACCATTGCTCTGCCTGTGCCGTATCGTCTCCAATTTTAATTACTTCTATCATC
 GGGAGACAGACCAGGAGCAGGCTGCCCTGAAGGAAGAGCAAGGCATCCAGAGCGGGAGTCTGGGCT
 GGACACAGGAGGTCAACGGAAGGTGAGTGCAGCAAGGCCTCTTCTGCAAGACTGGGGACCCCTGGAG
 AGTACTGACAGTATCAGAAGGGTGTGCTCTAGAAAAGTGTACCTAAAGGCAAGAGCAACGTGG
 ACCTGCGAAGGTCTGTATGCCCTGTCTGGACTAGCCGGGAACAGATTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR209320 protein sequence
 Red=Cloning site Green=Tags(s)

MEISLVPMENGSAMTLRGGGEAGASCVQSPRGECGPPTAGLNNQSKETSPRRRATHEDAGQGGRLPPM
 PQELPQPRRPSAEDEEGEDPGLGTVEEDQAPQDSGSLHHQRVLINISGLRFETQLGTLAQFPNTLLGDP
 VKRLRYFDPLRNEYFFDRNRPSFDGILYYYQSGGRLRRPVNVS LDVFADEIRFYQLGDEAMERFREDEGF
 IKEEEKPLPRNEFQRQVWLIFEYPESSGSARAIIVSVLVILISIIITFCLETLPEFRDERELLRHPPVPP
 QPPAPAPGANGSGSGVLSSGPTVAPLLPRTLADPFFIVEITTCVIWFTFELLVRFVACPSKAEFSRNIMNI
 IDIVAIFFPYFITLGTAEQPPGGGQNGQQAMSLAILRVIRLVRVFRIFKLSRHSKGLQILGKTLQASM
 RELGLLIFFLF IGVLFS SAVYFAEADNQGSHFSSIPDAFWAVVTMTTVGYGDMRPITVGGKIVGSLCA
 IAGVLTIALPVPVIVSNFNFYHRETDHEEQAALKEEQGIQRRESGLDTGGQRKVSCKASFCKTGGPLE
 STDSIRRGSCPLEKCHLKAKSNVDLRRSLYALCLDTSRETDL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_145983

ORF Size: 1809 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_145983.2](#)

RefSeq Size: 3032 bp

RefSeq ORF: 1809 bp

Locus ID: 16493

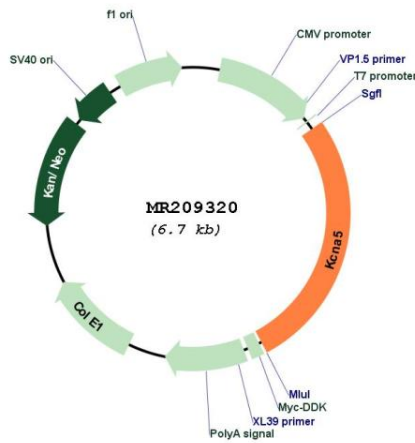
UniProt ID: [Q61762](#)

Cytogenetics: 6 61.35 cM

MW: 66.6 kDa

Gene Summary: Voltage-gated potassium channel that mediates transmembrane potassium transport in excitable membranes. Forms tetrameric potassium-selective channels through which potassium ions pass in accordance with their electrochemical gradient. The channel alternates between opened and closed conformations in response to the voltage difference across the membrane (PubMed:8226976, PubMed:11349004). Can form functional homotetrameric channels and heterotetrameric channels that contain variable proportions of KCNA1, KCNA2, KCNA4, KCNA5, and possibly other family members as well; channel properties depend on the type of alpha subunits that are part of the channel (By similarity). Channel properties are modulated by cytoplasmic beta subunits that regulate the subcellular location of the alpha subunits and promote rapid inactivation (By similarity). Homotetrameric channels display rapid activation and slow inactivation (PubMed:8226976, PubMed:11349004). May play a role in regulating the secretion of insulin in normal pancreatic islets (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR209320