

Product datasheet for **MG209320**

Kcna5 (NM_145983) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcna5 (NM_145983) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kcna5
Synonyms:	Kv1.5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209320 representing NM_145983
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGAGATCTCCCTGGTGCCCATGGAGAACGGCAGTGCCATGACCCTCAGAGGAGGAGGGGAGGCAGGGG
 CAAGCTGTGTGCAGAGCCCCAGGGGAGAGTGTGGGTGCCCTCCGACGGCTGGACTCAATAATCAGTCCAA
 AGAAACATCACCGAGGAGGCGCGCCACACAGGAGATGCGGGCCAGGGTGGGAGGCCCTTTGCCCCCTATG
 CCTCAGGAGCTGCCACAGCCTAGAAGGCCATCTGCTGAGGATGAGGAGGAGAAGGCGACCTGGCCTGG
 GCACAGTGGAGGAGACCAGGCTCCTCAGGACTCAGGATCACTCCATCACAGCGGGTCTCATAAACAT
 CTCGGGTTTGGCCTTTGAGACGCAGCTGGGCACCCTGGCGCAGTTTCCAAACACCCTCTGGGGACCCA
 GTCAAACGCCTGCGCTACTTCGATCCCTTGAGAAATGAGTACTTCTCGACCGCAACCGGCTAGCTTCG
 ATGGCATTGTACTACTACCAGTCTGGGGCCGCTGCGCAGGCGGTCAATGTCTCCCTGGATGTGTT
 TGCAGATGAGATCCGCTTTTACCAGCTGGGGACGAGGCCATGGAGCGCTTCCGGGAGGATGAAGGCTTC
 ATCAAGGAAGAGGAGAAGCCCCTGCCCCGAATGAGTTCAGCGCCAGGTGTGGCTTATCTTCAATACC
 CAGAAAGCTCTGGGTGAGCAAGAGCCATTGCCATCGTGTCCGCTTGGTCACTTCTATCATCTATCATCAC
 CTTCTGCTGGAGACTCTGCCTGAGTTCAGGGATGAACGGGAGCTGTACGCCACCCCCAGTGCCGCCG
 CAGCCCCAGCCCCTGCCCCAGGGGCAATGGCAGTGGCTCTGGTGTCTTTCTCTGGCCCCACAGTGG
 CTCCGCTCCTGCCTAGGACACTGGCTGACCATTCTTCATCGTGGAGACCACATGTGTGATCTGGTTCAC
 TTTTGAGCTGCTGTGCGTTTCTTTGCTTGCCCCAGCAAGGCAGAATTCTCTCGGAATATTATGAACATC
 ATTGATATTGTGCCATCTTCCCTACTTTATCACCCCTGGGACCGAGCTGGCAGAGCAACAACCCAGGGG
 GTGGTGGTCAGAATGGGACGAGGCCATGTCCTAGCCATCCTCAGGGTATCCGCTGGTCCGGGTGTT
 CCGAATCTTCAAGCTCTCCCGCACTCCAAGGGACTGCAGATCCTGGGTAAAGACCTTACAGGCGTCCATG
 CGGGAGCTCGGGCTGCTCATCTTCTTCTTTCATCGGAGTCATCCTCTTCTCCAGCGCTGTCTACTTCCG
 CAGAGGCAGACAATCAGGGGTGCGCACTTCTCCAGTATCCCGGATGCATTCTGGTGGGCGAGTACTACTAT
 GACCACTGTAGGCTACGGGGACATGAGGCCATCACTGTAGGGGGCAAGATTGTGGGCTCACTGTGCGCC
 ATAGCTGGGGTCTCACCATTGCTCTGCCTGTGCCGTCATCGTCTCCAATTTTAATTACTTCTATCATC
 GGGAGACAGACCAGGAGCAGGCTGCCCTGAAGGAAGAGCAAGGCATCCAGAGCGGGAGTCTGGGCT
 GGACACAGGAGGTCAACGAAGGTGAGTGCAGCAAGGCCTCCTTCTGCAAGACTGGGGACCCCTGGAG
 AGTACTGACAGTATCAGAAGGGTGTGCTCCTCTAGAAAAGTGTACCTAAAGGCAAGAGCAACGTGG
 ACCTGCGAAGGTCTCTGTATGCCCTCTGTCTGGACTAGCCGGGAAACAGATTTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG209320 representing NM_145983
 Red=Cloning site Green=Tags(s)

MEISLVPMENGSAMTLRGGGEAGASCVQSPRGECGPPTAGLNNQSKETSPRRRATHEDAGQGGRLPPM
 PQELPQRRPSAEDEEGEDPGLGTVEEDQAPQDSGSLHHQRVLIINISGLRFETQLGTLAQFPNTLLGDP
 VKRLRYFDPLRNEYFFDRNRPSFDGILYYYQSGGRLRRPVNVS LDVFADEIRFYQLGDEAMERFREDEGF
 IKEEEKPLPRNEFQRQVWLIFEYPESSSARAIIVSVLVILISIIITFCLETLPEFRDERELLRHPPVPP
 QPPAPAPGANGSGSGVLSSGPTVAPLLPRTLADPFFIVETTTCVIWFTFELLVRFVRFACPSKAEFSRNIMNI
 IDIVAIFFPYFITLGTAEQQPGGGQNGQQAMSLAILRVIRLVRVFRIFKLSRHSKGLQILGKTLQASM
 RELGLLIFFLFIGVILFSSAVYFAEADNQGSFSSIPDAFWAVVTMTTVGYGDMRPITVGGKIVGSLCA
 IAGVLTIALPVPVIVSNFNFYFHRET DHEEQALKKEEQIQRRRESGLDTGGQRKVSCSKASFCKTGGPLE
 STDSIRRGSCPLEKCHLKAKSNVDLRRSLYALCLDTSRETDL

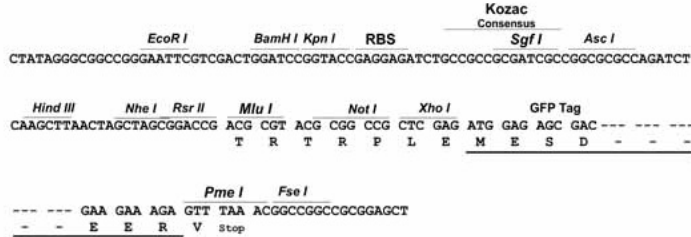
TRTRPLE - GFP Tag - V

Restriction Sites:

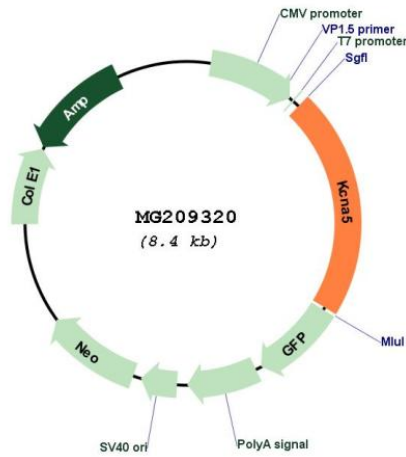
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_145983

ORF Size: 1806 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:	<ol style="list-style-type: none">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:	2865 bp
RefSeq ORF:	1809 bp
Locus ID:	16493
UniProt ID:	Q61762
Cytogenetics:	6 61.35 cM
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]