

Product datasheet for **MC220156**

Kcna4 (NM_021275) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcna4 (NM_021275) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Kcna4
Synonyms:	Kv1.4
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC220156 representing NM_021275
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAAGTGGCGATGGTGTAGTGCCGAGAGCTCAGGGTGC AACAGCCATATGCCTTATGGTTATGCAGCCC
 AGGCCAGGGCCCAGAGCGGGAGAGACTCGCTCACTCCAGGGCAGCTGCAGCTGCTGCTGTCGAGCTGC
 CACGGCTGCTGTGAAGGCACTGGGGTTCTGGTGGAGGCCCCACCACCATCATCAGACACGTGGGGCC
 TACTCCTCCCATGATCCTCAAGGTAGCCGTGGAAGTAGAAGGAGGAGGCGTCAGCGAACTGAGAAGAAGA
 AACTCCACCACAGGCAGAGCAGTTTTCTCATTGCTCAGACCTGATGCCAGTGGCTCTGAAGAGAAGAT
 CCTGAGGGAGCTAAGCGAGGAAGAGGAAGACGAGGAGGAGGAAGAGGAGGAGGAGGAGGAGGAAAGTTT
 TACTATAGTGAAGAAGACCATGGGGATGGGTGTTCTGACACAGACCTGCTGCCACAGGATGATGGGGTG
 GTGGCGGTACAGTTCAGTCCGCTATAGTACTGCTGTGAACGTGGTGATAAAATGTGTCTGGTCTACG
 CTTGAAACCCAAATGAAAACCTTTGGCCAGTTCCAGAACTCTGTTGGGAGACCTGAGAAGAGGACT
 CAGTACTTCGACCCTTTGCGCAATGAGTATTTTTTATCGGAACCGACCAGCTTTGATGCCATTTTGT
 ATTATTACCAGTCAGGAGGCCCTGAAGAGACCAGTCAATGTCCCTTTGATATCTTCCAGGAGGAGT
 GAAGTTCTATCAGTTGGGAGAGGAAGCCCTGCTCAAGTCCGGGAGGATGAGGGCTTTGTGAGAGAAGAG
 GAGGACAGGGCTCTGCCAGAAAATGAATTTAAAAACAGATTTGGCTTCTTTGAATATCCAGAGAGTT
 CTAGCCCTGCCAGGGGTATAGCCATTGTGTCTGCTGGTCACTTAATCTCTATTGTATATTTGGCT
 GAAACCTTGGCGGAGTTGAGGGATGATAGGGACCTTATATGGCCCTCAGTGCAGGCGGGCACAGCAGA
 TTGCTGAATGACACCTCGGCACCCACCTGGAGAACTCAGGGCACACAATTTCAATGACCCTTTCTTCA
 TCGTGGAGACAGTGTGATTGTGTGGTTTTCTTTGAGTTTGTGGTTTCGATGCTTTGCTTGTCCAGCCA
 AGCACTTCTTCAAAAACATCATGAACATCATTGATATCGTCTCCATTTGCTTACTTCACTCACTCTG
 GGCACTGACCTGGCCCAACAGCAGGGGGTGGCAATGGCCAGCAGCAGCAGGCCATGTCTTTGCCATCC
 TTAGGATCATTCTGTCTGGTCCGAGTATTCGGATCTTCAAGCTCTCCAGACACTCAAAGGCCTGCAGAT
 CCTGGGCCACACCCTAAGAGCCAGCATGCGGGAAGTGGGCCTTCTTATCTTTTCTTCTCATCGGGGT
 ATCCTCTTTTCCAGCGCTGTGATTTTGCAGAGCGGATGAACCCACTACCCATTTCAAAGCATTCCAG
 ATGCGTTTTGGTGGGCTGTGTAACCATGACAAGTGTGGGCTATGGGGACATGAAGCCATCACAGTCGG
 GGGAAAGATTGTGGGGTCCCTGTGTGCCATTGCGGGTGTCTTAACCATGCTTTGCTGTGCCGGTGATT
 GTGTCTAACTTTAACTATTTCTACCACAGAGAGACTGAAAATGAAGAACAGACCCAGCTGACACAAAACG
 CAGTCAGTTGTCCATACCTACCTTCTAATTTGCTCAAGAAATTTGCGAGCTCCACTTCTTCTCCCTGGG
 GGACAAGTCAGAGTATCTAGAGATGGAAGAAGGGTCAAGGAATCATTATGTGAAAGGAGGAGAAGTGT
 CAGGGAAAGGGAGATGAGAGCGAGACAGATAAAAACAACTGTTCTAATGCAAAGGCTGTGGAGACTGATG
 TG**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_021275

Insert Size: 1965 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_021275.4](#), [NP_067250.2](#)

RefSeq Size: 4844 bp

RefSeq ORF: 1965 bp

Locus ID: 16492

UniProt ID: [Q61423](#)

Cytogenetics: 2 56.12 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:8020965). 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. In vivo, membranes probably contain a mixture of heteromeric potassium channel complexes, making it difficult to assign currents observed in intact tissues to any particular potassium channel family member. Homotetrameric KCNA4 forms a potassium channel that opens in response to membrane depolarization, followed by rapid spontaneous channel closure (PubMed:8020965). Likewise, a heterotetrameric channel formed by KCNA1 and KCNA4 shows rapid inactivation (By similarity).[UniProtKB/Swiss-Prot Function]