

## Product datasheet for **MR220977**

### **Kcna4 (NM\_021275) Mouse Tagged ORF Clone**

#### **Product data:**

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



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**ORF Nucleotide Sequence:**

>MR220977 representing NM\_021275  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAAGTGGCGATGGTGTAGTGCCGAGAGCTCAGGGTGC AACAGCCATATGCCTTATGGTTATGCAGCCC  
 AGGCCAGGGCCCAGAGCGGGAGAGACTCGCTCACTCCAGGGCAGCTGCAGCTGCTGCTGTCGAGCTGC  
 CACGGCTGCTGTGAAGGCACTGGGGTTCTGGTGGAGGCCCCACCACCATCATCAGACACGTGGGGCC  
 TACTCCTCCCATGATCCTCAAGGTAGCCGTGGAAGTAGAAGGAGGAGCGTCAGCGAACTGAGAAGAAGA  
 AACTCCACCACAGGCAGAGCAGTTTTCTCATTGCTCAGACCTGATGCCAGTGGCTCTGAAGAGAAGAT  
 CCTGAGGGAGCTAAGCGAGGAAGAGGAAGACGAGGAGGAGGAAGAGGAGGAGGAGGAGGAGGGAAGTTT  
 TACTATAGTGAAGAAGACCATGGGGATGGGTGTTCTGACACAGACCTGCTGCCACAGGATGATGGGGTG  
 GTGGCGGTACAGTTCAGTCCGCTATAGTACTGCTGTGAACGTGTGGTGATAAATGTGTCTGGTCTACG  
 CTTGAAACCCAAATGAAAACCTTTGGCCAGTTCCAGAACTCTGTTGGGAGACCTGAGAAGAGGACT  
 CAGTACTTCGACCCTTTGCGCAATGAGTATTTTTTATCGGAACCGACCAGCTTTGATGCCATTTTGT  
 ATTATTACCAGTCAGGAGGCCCTGAAGAGACCAGTCAATGTCCCTTTGATATCTTACCAGGAGGAT  
 GAAGTTCTATCAGTTGGGAGAGGAAGCCCTGCTCAAGTCCGGGAGGATGAGGGCTTTGTGAGAGAAGAG  
 GAGGACAGGGCTCTGCCAGAAAATGAATTTAAAAACAGATTTGGCTTCTTTGAATATCCAGAGAGTT  
 CTAGCCCTGCCAGGGGTATAGCCATTGTGTCTGCTGGTCACTTAATCTCTATTGTATATTTGGCT  
 GAAACCTTGCCGGAGTTCAGGGATGATAGGGACCTTATATGGCCCTCAGTGCAGGCGGGCACAGCAGA  
 TTGCTGAATGACACCTCGGCACCCACCTGGAGAACTCAGGGCACACAATATTCAATGACCCTTTCTTCA  
 TCGTGGAGACAGTGTGATTGTGTGGTTTTCTTTGAGTTTGTGGTTCGATGCTTTGCTTCCAGCCA  
 AGCACTTCTTCAAAAACATCATGAACATCATTGATATCGTCTCCATTTTGCCTTACTTCATCACTCTG  
 GGCACTGACCTGGCCCAACAGCAGGGGGTGGCAATGGCCAGCAGCAGCAGGCCATGTCCTTTGCCATCC  
 TTAGGATCATTCTGCTGGTCCGAGTATTCGGATCTTCAAGCTCTCCAGACACTCCAAAGGCCTGCAGAT  
 CCTGGGCCACACCCTAAGAGCCAGCATGCGGGAAGTGGGCCTTCTTATCTTTTCTCTTCATCGGGGT  
 ATCCTCTTTTCCAGCGCTGTGTATTTTGCAGAGGCGGATGAACCCACTACCCATTTCCAAAGCATTCCAG  
 ATGCGTTTTGGTGGGCTGTGTAACCATGACAAGTGTGGGCTATGGGGACATGAAGCCCATCACAGTCGG  
 GGGAAAGATTGTGGGTCCCTGTGTGCCATTGCGGGTGTCTTAACCATTGCTTTGCCTGTCCGGTGATT  
 GTGTCTAACTTTAACTATTTCTACCACAGAGAGACTGAAAATGAAGAACAGACCCAGCTGACACAAAACG  
 CAGTCAGTTGTCCATACCTACCTTCTAATTTGCTCAAGAAATTTTCGGAGCTCCACTTCTTCTCCCTGGG  
 GGACAAGTCAGAGTATCTAGAGATGGAAGAAGGGTCAAGGAATCATTATGTGAAAGGAGGAGAAGTGT  
 CAGGGAAGGGAGATGAGAGCGAGACAGATAAAAACAACTGTTCTAATGCAAAGGCTGTGGAGACTGATG  
 TG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



**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

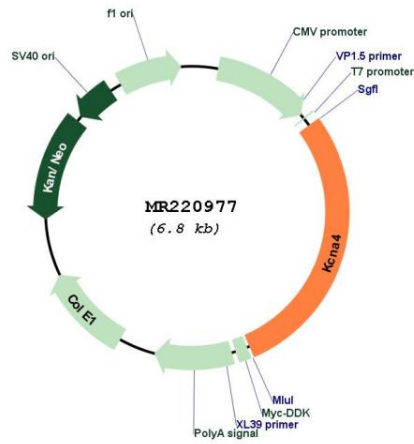
**UniProt ID:** [Q61423](#)

**Cytogenetics:** 2 56.12 cM

**MW:** 73.9 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: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]

Product images:



Circular map for MR220977