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Product datasheet for MC228877

Kcnc3 (NM_001290682) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnc3 (NM_001290682) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Kcnc3
Synonyms:	Kcr2-3; KShIIID; Kv3.3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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Fully Sequenced ORF:

>MC228877 representing NM_001290682
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTCAGTTCAGTGTGCGTCTGGTCGTTCCGCGGGCGCCAGGGGACCGGCAAGCAGCAGCCTCAGCCGG
TGCCAACGCCGCAGCCGCCTGAGTCCTCACCGCCGCCTCTGCCGCCGCCGCAGCAGCAGCAGTGCTCTCA
GCCCGGCACTGCCGCCTCCCCGGCGGGTGCCCCGCTTTCCTGCGGGCCTGGGGGCCGGCGTGCCGAGCCA
TGCCCCGGGCTGCCGGCGGTGGCCATGGGGCGGCACGGCGGCGGCGGCGGCGACAGCGGTAAGATCGTGA
TCAACGTGGGCGGCGTGCGCCATGAGACGTACCGCTCCACGTTGCGCACCCTGCCAGGGACCAGACTGGC
CGGGCTGACCGAGCCCGAGGCGGCCGCGCGCTTTGACTACGACCCGGGCACGGACGAGTTCTTCTTCGAC
CGTCACCCGGGCGTCTTCGCCTACGTGCTCAACTACTACCGCACCGGCAAACTGCACTGCCCGGCCGACG
TGTGCGGGCCGCTCTTCGAGGAGGAGCTGGGCTTCTGGGGCATAGACGAGACGGACGTGGAGGCCTGCTG
CTGGATGACCTATCGCCAGCACCGTGACGCTGAGGAGGCACTGGACTCTTTCGAGGCCCCGGACTCCTCG
GCCAACGCCAACGCCAACGCCGGAGGCGCGCACGATGCGGGACTGGACGACGAGGCGGGCGCAGGAGGCG
GCGGCCTGGACGGGGCAGGCGGCGAGCTCAAGCGTCTGTGTTTTCAGGACGCGGGCGGAGGTGCCGGAGG
ACCTGCCGGGGGCGCGGGCGGCGCGGGCGGCACCTGGTGGCGGCGCTGGCAGCCCCGTGTGTGGGCGCTT
TTTGAGGACCCCTACTCGTCGCGGGCTGCCAGGTATGTGGCCTTCGCCTCCCTATTCTTTATCCTCATCT
CCATCACCACCTTCTGCCTGGAGACACACGAGGGCTTCATCCACATCAGCAACAAGACGGTGACGCAGGC
CTCCCCAATCCCTGGGGCTCCCCCGGAGAATATCACCAACGTGGAGGTGGAGACGGAACCCTTCTTGACC
TACGTGGAAGGCGTGTGTGTGGTCTGGTTCACCTTTGAGTTTCTCATGCGGGTCACCTTCTGCCCAGATA
AGGTGGAGTTTCTCAAAAGCAGCCTGAACATCATCGACTGCGTGGCCATCTTGCCCTTCTACTTGGAAGT
GGGCCTGTCAGGTCTCAGCTCCAAAGCTGCCAAGGACGTGCTGGGCTTCCTGCGTGTCGTCCGCTTCGTG
CGCATCCTTCGTATCTTCAAGCTGACCCGTCACTTCGTGGGGCTGCGTGTGCTGGGCCACACGCTCCGGG
CCAGCACCAACGAATTCTTGTTACTCATCATCTTCCTGGCTCTGGGGGTCCTCATCTTTGCCACCATGAT
CTACTATGCCGAACGCATCGGGGCTGATCCTGACGACATCCTGGGCTCCAACCACACCTACTTCAAGAAC
ATCCCCATCGGCTTCTGGTGGGCTGTGGTCACCATGACGACACTGGGCTATGGAGACATGTATCCCAAGA
CGTGGTCTGGGATGCTGGTTGGGGCACTGTGTGCCCTGGCTGGTGTGCTGACCATTGCCATGCCCGTGCC
TGTCATTGTCAACAACTTCGGCATGTACTATTCACTGGCTATGGCCAAGCAGAAATTGCCAAAGAAGAAA
AACAAACATATTCCCAGGCCCCCGCAGCCTGGCTCACCCAACTACTGCAAGCCTGACCCCCCGCCTCCAC
CCCCACCACACCCCCACCACGGCAGCGGTGGCATAAGCCCACCGCCGCCCATCACCCCTCCTTCCATGGG
GGTGAATGTGGCCGGGGCCTACCCACCTGGACCCCACACACACCCCGGGCTGCTCAGGGGTGGTGCTGGG
GGCCTGGGAATCATGGGATTGCCTCCTCTGCCAGCCCCTGGTGAGCCCTGCCCATTGGCTCAAGAAGAGG
TGATTGAAACCAACAGGGCAGACCCCCGTCCCAATGGAGACCCTGCAGCAGCCGCACTGGCCCATGAGGA
CTGCCCTGCCATCGACCAGCCAGCCATGTCTCCAGAAGACAAGAGCCCAATCACTCCCGGAAGCCGGGGT
CGCTACAGCCGGGACCGAGCTTGCTTCCTTGTCACAGACTATGCCCCTTCCCCTGATGGCTCCATCCGAA
AAGCCACTGGTGCTCCCCCACTGCCCCCCCCATGCTGGCATAAGCCAGGCCCCCCAAGCTTCTTGCCCGA
CCTCAACGCCAACGCAGCAGCCTGGATATCCCCCTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001290682

Insert Size: 2277 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).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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_001290682.1, NP_001277611.1
RefSeq Size:	5184 bp
RefSeq ORF:	2277 bp
Locus ID:	16504
Cytogenetics:	7 28.85 cM
Gene Summary:	Voltage-gated potassium channel that plays an important role in the rapid repolarization of fast-firing brain neurons. The channel opens in response to the voltage difference across the membrane, forming a potassium-selective channel through which potassium ions pass in accordance with their electrochemical gradient. The channel displays rapid activation and inactivation kinetics (PubMed:18539595, PubMed:26997484, PubMed:24218544). It plays a role in the regulation of the frequency, shape and duration of action potentials in Purkinje cells (PubMed:15217387, PubMed:18448641, PubMed:24218544). Required for normal survival of cerebellar neurons, probably via its role in regulating the duration and frequency of action potentials that in turn regulate the activity of voltage-gated Ca(2+) channels and cellular Ca(2+) homeostasis (PubMed:24218544). Required for normal motor function (PubMed:16923152, PubMed:18448641). Plays a role in the reorganization of the cortical actin cytoskeleton and the formation of actin veil structures in neuronal growth cones via its interaction with HAX1 and the Arp2/3 complex (PubMed:26997484).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (2) contains an alternate exon compared to variant 1. The resulting isoform (2) has a shorter and distinct C-terminus compared to isoform 1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.