

Product datasheet for **MR226697**

Kcnc3 (NM_008422) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnc3 (NM_008422) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcnc3
Synonyms:	Kcr2-3; KShIIID; Kv3.3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR226697 representing NM_008422
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTCAGTTCAGTGTGCGTCTGGTCGTTCCGCGGGCCAGGGACCGCAAGCAGCAGCCTCAGCCGG
 TGCCAACGCCGACGCCGCTGAGTCCTACCGCGCCTCTGCCGCGCCGAGCAGCAGCAGTGTCTCA
 GCCCGGCACTGCCGCTCCCGCGGGTCCCCCGCTTTCCTGCGGGCTGGGGGCGCGGTGCCGAGCCA
 TGCCCCGGGTGCCGGCGGTGGCCATGGGGCGGCACGGCGGCGCGGGCGGACAGCGGTAAAGATCGTGA
 TCAACGTGGGCGGCTGCCCATGAGACGTACCGCTCCACGTTGCGCACCTGCCAGGGACCAGACTGGC
 CGGGGTGACCGAGCCGAGGCGGCGCGCTTTGACTACGACCCGGGCACGGACGAGTCTTCTTCGAC
 CGTCACCCGGGCTCTTCGCTACGTGCTCAACTACTACCGCACCGCAAAGTGCCTGCCCGGCCGACG
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 TTTGAGGACCCCTACTCGTCGCGGGTCCAGGTATGTGGCCTTCGCTCCCTATTTTATCCTCATCT
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 GGGCCTGTGAGGTCTCAGCTCAAAGCTGCAAGGACGTGCTGGGCTTCTGCGTGTCTGCGCTTCGTTG
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 ATCCCCATCGGCTTCTGGTGGGCTGTGGTACCATGACGACACTGGGCTATGGAGACATGTATCCAAGA
 CGTGGTCTGGGATGCTGGTTGGGCACTGTGTCCCTGGCTGGTGTGCTGACCATTGCCATGCCCGTGCC
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 GGCTGGGAATCATGGGATTGCCTCCTCTGCCAGCCCCTGGTGGAGCCCTGCCATTGGCTCAAGAAGAGG
 TGATTGAAACCAACAGGGCAGACCCCGTCCCAATGGAGACCCTGCAGCAGCCGCACTGGCCATGAGGA
 CTGCCCTGCCATCGACCAGCCAGCATGTCTCCAGAAGACAAGAGCCCAATCACTCCCGAAGCCGGGT
 CGCTACAGCCGGGACCGAGCTTGTCTTGTGTACAGACTATGCCCTTCCCCTGATGGTCCATCCGAA
 AAGGTTACGAGAAGTCCCGCAGCCTGAGCAGATTGTGGGCTGAGCGGGGTGTCCCTGCGCCTCGCGCC
 CCTCGCACCCCCCTGGCTCTCCCCGGCCACGCGCCGAGCTCCCCGACCCTGCCCTCCATCCTC

ACGCGTACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTAA

Protein Sequence: >MR226697 representing NM_008422
 Red=Cloning site Green=Tags(s)

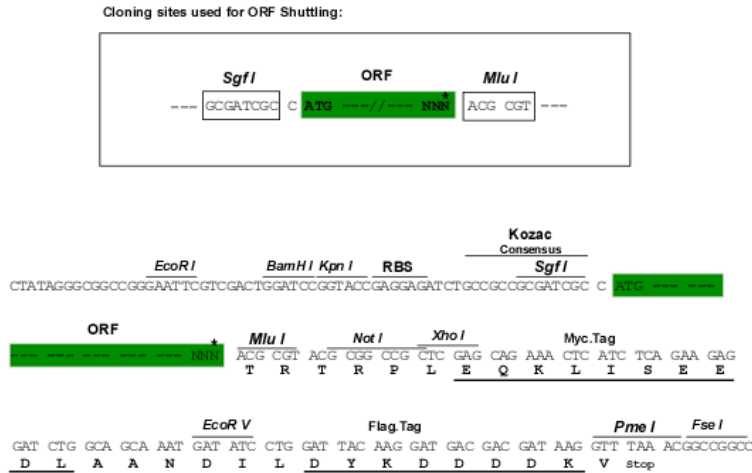
MLSSVCVWSFRGRQGTGKQQPQPVPPTQPPESSPPPLPPPQQQCSQPETAASPAGAPLSCGPGGRRRAEP
 CPGLPAVAMGRHGGGGDSGKIVINVGGVRHETYSRSTLRTPGTRLAGL TEPEAAARFDYDPGTDEFFFD
 RHPGVFAVYVLYRTGKLCPCADVCGLFEEELGFWGIDETDVEACCMWYRQHRDAEEALDSFEAPDSS
 ANANAGGAHDAGLDDEAGAGGGGLDGAGGELKRLCFQDAGGGAGGPAGGAGGAGTWWRRWQPRVWAL
 FEDPYSSRAARYVAFASLFFILISITTFCLTHEGFHISNKTVTQASPIPGAPPENITNVEVETEPFLT
 YVEGVCVWFTEFLMRVTFCDPKVEFLKSSLNIIIDCVAILPFYLEVGLSGLSSKAAKDLVGLFRVRFV
 RILRIFKLRHFVGLRVLGHTLRSTNEFLLLIIFLALGVLIFATMIYYAERIGADPDDILGSNHTYFKN
 IPIGFVAVVMTTLGYDMYPKTWSGMLVGCALAGVLTAMPVPIVNNFGMYSLAMAKQLPKKK
 NKHIPRPPQPGSPNYCKPDP PPPPPPHHGGSGISPPPPITPPSMGVNAGAYPPGPHTHPGLLRGGAG
 GLGIMGLPPLPAPGEPCLAQEEVIETNRADPRPNGDPAALAHEDCPAIDQPAMPEDKSPITPGSRG
 RYSRDRACFLVTDYAPSPDGSIRKGYEKSRSLSIVGLSGVSLRLAPLATPPGSPRATRRAPPTLPSIL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9004_b12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_008422

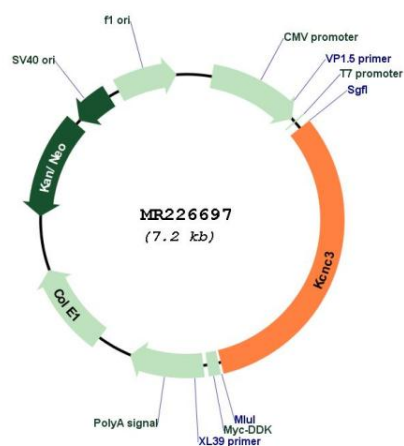
ORF Size: 2307 bp

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:	<u>NM_008422.2</u> , <u>NP_032448.2</u>
RefSeq Size:	5072 bp
RefSeq ORF:	2310 bp
Locus ID:	16504
UniProt ID:	<u>Q63959</u>
Cytogenetics:	7 28.85 cM
MW:	82.4 kDa
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]

Product images:



Circular map for MR226697