

Product datasheet for RC216225

KCNT2 (NM_198503) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNT2 (NM_198503) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNT2
Synonyms:	EIEE57; KCa4.2; SLICK; SLO2.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC216225 representing NM_198503 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTTGATTTGGAGAGCGAAGTGCCCCCTCGCCTCCCAGGTACAGGTTTCGAGATTTGCTGCTAGGGG
ACCAAGGATGGCAAACGACGACAGGGTACAAGTTGAATCTATGAATGAAAATACATTTAAAGAAAG
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TTACTAAGCTGCTTATTATACATAATCCGAGTACTACTAGAAAACCCCTCACAAGGAAATGAATGGTCTC
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TGAACAATATTACTTGGTTATCTTAGTTATAAGGGAAACATCTGGGAACAGATTTTACGAATACCCCTTC
ATCTTGAAATAATTAATGCAGTTCCTTCATTATCTCAATATTCGGCCTTCCTTAAGGAATCTATTTG
TCCCAGTCTTTCTGAACTGTTGGCTTGCCAAACATGCCTTGAAAATATGATTAATGATCTACACAGAGC
CATTACAGCGTACACAGTCTGCAATGTTAATCAAGTTTGATTTAATATCTACATTACTATGCCTTATC
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CCAGGATTATTATGTGGTGATTTTGTGCTCTACTGAAATGGATGTACAGGTTTGAAGGTTACTGCAGATT
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TGTTAGCTTTAACTGTATATGCCAGCAACATCTACACTTATTACACTACTGGTTCATACCTCTAGAGG
GCAAGAAGGCCAGCAATGCCAGAACAATGGCAGAAGATGTACGGTAGATGCTCCGGGAATGAAGTCTAC



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CACATTGTTTTGGAAGAAAGTACATTTTTTGTCTGAATATGAAGGAAAGAGTTTTACATATGCCTCTTTCC
ATGCACACAAAAAGTTTGGCGTCTGCTTGATTGGTGTTAGGAGGGAGGATAATAAAAAACATTTTGTCTGAA
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TGTTGTACTTAATTCGACCAGATCCACTGGCCTACCTTCAAACAGTGAGCCAGTCGAAGAAACAGC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC216225 representing NM_198503
Red=Cloning site Green=Tags(s)

MVDLESEVPPLPPRYRFRDLLLDGQGWQNDQVQVEFYMNENTFKERLKLFFIKNQSSLRIRLFNFSLK
 LLSCLLYIIRVLLLENPSQGNESHIFWVNRSLPLWGLQVSVALISL FETILLGYLSYKGNIEWEQILRIPF
 ILEIINAVPFIISIFWPSLRNLFVVPFLNCWLAKHALENMINDLHRAIQRTQSAMFNQVLLISTLLCLI
 FTCICG IQHLERIGKKNLFDLSYFCIVTFSTVGFQDVTPEWSSKLFVAMICVALVVLPIQFEQLAYL
 WMERQKSGGNYSRHAQTEKHVVLCVSSLKIDLLMDFLNEFYAHPRLQDYVVVILCPTEMDVQVRRVLQI
 PMWSQRVIYLQGSALKDQDLLRAKMDDAEACFILSSRCEVDRTSSDHQTLRAWAVKDFAPNCPLYVQIL
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 HIVLEESTFFAEYEGKSFTYASFHAKKFGVCLIGVRREDKNILLNPGPRYIMNSTDICFYINITKEEN
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 PVLEVADTSSIQTCDLLSDQSEDETPDEEMSSNLEYAKGYPPSPYIGSSPTFCHLLHEKVPFCCLRLD
 KSCQHNYVEDAKAYGFKNKLIIVAAETAGNLYNFIVPLRAYRPPKELNPIVLLLDNPPDMHFLDAICW
 FPMVYYMVGSIDNLDLRCGVTFANMVVVDKESTMSAEEDYMAKTI VNVQTLFRLFSSLSIITELT
 HPANMRFMQFRAKDCYSLALSKLEKKERERGSNLAFMFRLPFAAGRVFSISMLD TLLYQSFVKDYMISIT
 RLLGLDTPGSGFLCSMKITADDLWIRTYARLYQKLCSSSTGDVPIGIYRTESQKLTTSESQISISVEEW
 EDTKDSKEQGHRSNHRNSTSSDQSDHPLLRRKSMQWARRLSRKGPKHSGKTAEKITQQLNLRYRRESRQ
 ELAELVKNRMKHLGLSTVGYDEMNDHQSTLSYILINSPDTRIELNDVVYLIRPDPLAYLPNSEPSRRNS
 ICNVTGQDSREETQL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2711_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_198503

ORF Size: 3405 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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:

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_198503.2](#), [NP_940905.2](#)

RefSeq Size: 5909 bp

RefSeq ORF: 3408 bp

Locus ID: 343450

UniProt ID: [Q6UVM3](#)

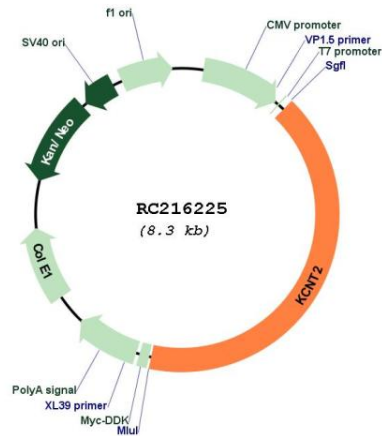
Cytogenetics: 1q31.3

Protein Families: Druggable Genome, Ion Channels: Potassium, Transmembrane

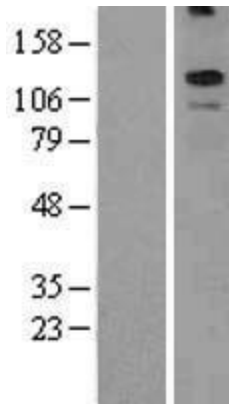
MW: 130.3 kDa

Gene Summary: Outward rectifying potassium channel. Produces rapidly activating outward rectifier K(+) currents. Activated by high intracellular sodium and chloride levels (PubMed:14684870, PubMed:16687497, PubMed:29069600). Channel activity is inhibited by ATP and by inhalation anesthetics, such as isoflurane (PubMed:16687497) (By similarity). Inhibited upon stimulation of G-protein coupled receptors, such as CHRM1 and GRM1 (PubMed:16687497).
[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC216225



Western blot validation of overexpression lysate (Cat# [LY404890]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216225 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).