

Product datasheet for **RC219479**

KCNQ5 (NM_019842) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNQ5 (NM_019842) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNQ5
Synonyms:	Kv7.5; MRD46
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC219479 representing NM_019842
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCCGCCACCACGCGGGAGGAGAGGGCGCGCCCGGGCTCTGGGTGAAGAGCGGCCAGCGG
 CGGCGCGCGCGGGCGGGGGCGCTTGGGCAGCGGCATGAAGGATGTGGAGTCCGGCCGGGCAGGGTGT
 GCTGAACTCGGCAGCCGACAGGGGCGACGGCTGCTACTGCTGGGCACCCGCGGCCACGCTCGGTGGC
 GGCGGGGTGGCCTGAGGGAGAGCCCGGGGCAAGCAGGGGGCCGGATGAGCCTGCTGGGAAGCCGC
 TCTTTACACGAGTAGCCAGAGCTGCCGGCGCAACGTCAAGTACCGCGGGTGCAGAACTACCTGTACAA
 AGTGTGGAGAGACCCCGCGCTGGCGTTTCTACCACGCTTTCGTTTTTCTCCTTGTCTTTGGTTGC
 TTGATTTTGTGAGTGTTCACCATCCCTGAGCACACAAAATGGCCTCAAGTTGCCTCTTGATCCTGG
 AGTTTCGTGATGATTGTCGTCTTTGGTTTGGAGTTCATCATTGCAATCTGGTCTGCGGGTGTCTGTTGCG
 ATATAGAGGATGGCAAGGAAGACTGAGGTTTGGCTCGAAAGCCCTTCTGTGTTATAGATACCATTGTTCTT
 ATCGCTTCAATAGCAGTTGTTTCTGCAAAAACCTCAGGGTAAATTTTTGCCACGCTGCACTCAGAAGTC
 TCCGTTTCTACAGATCCTCCGCATGGTGCATGGACCGAAGGGGAGGCACTTGAAAATTACTGGGTTT
 AGTGGTTTATGCTCACAGCAAGGAATTAATCACAGCTTGGTACATAGGATTTTTGGTTCTTATTTTTTCG
 TCTTTCTTGTCTATCTGGTGGAAAAGGATGCCAATAAAGAGTTTTCTACATATGCGAGTGTCTCTGGT
 GGGGCACAATTACATTGACAACCTATTGGCTATGGAGACAAAACCTCCCTAACTGGCTGGGAAGATTGCT
 TTCTGCAGGCTTTCGACTCCTTGGCATTCTTTCTTTGCACTTCTGCGGCATTCTTGGCTCAGTTTTT
 GCATTAAGTACAAGAACAACCCGCCAGAAAACCTTTGAGAAAAGAAGAACCCAGCTGCCAACCTCA
 TTCAGTGTGTTTGGCGTAGTTACGCAGCTGATGAGAACTCTGTTCCATTGCAACCTGGAAGCACTT
 GAAGGCCTTGACACCTGCAGCCCTACCAAGAAAGAAACAAGGGGAAGCATCAAGCAGTCAGAAGCTAAGT
 TTTAAGGAGCGAGTGCGCATGGCTAGCCCCAGGGCCAGAGTATTAAGAGCCGACAAAGCCTCAGTAGGTG
 ACAGGAGTCCCCAAGCACCGACATCACAGCCGAGGGCAGTCCCACAAAGTGCAGAAGAGCTGGAGCTT
 CAACGACCGAACCCTTCCGGCCCTCGCTGCGCCTCAAAGTTCTCAGCCAAAACAGTATAGATGCT
 GACACAGCCCTTGGCACTGATGATGATATGATGAAAAGGATGCCAGTGTGATGATCAGTGGAAAGACC
 TCACCCACCCTTAAACTGTCATTGAGCTATCAGAATTATGAAATTTTATGTTGCAAAAACGGAAGTT
 TAAGGAAACATTACGTCCATATGATGAAAAGATGTCATTGAACAATATCTGCTGGTCACTGGACATG
 TTGTGTAGAATTAAGCCTTCAAACACGTGTTGATCAAATCTTGGAAAAGGGCAAATCACATCAGATA
 AGAAGAGCCGAGAGAAAATAACAGCAGAACATGAGACCACAGACGATCTCAGTATGCTCGGTCCGGTGGT
 CAAGGTTGAAAACAGGTACAGTCCATAGAATCCAAGCTGGACTGCCTACTAGACATCTATCAACAGGTC
 CTTCCGAAAGGCTCTGCCTCAGCCCTCGCTTTGGCTTCTTCCAGATCCCACCTTTTGAATGTGAACAGA
 CATCTGACTATCAAAGCCCTGTGGATAGCAAAGATCTTTCGGGTTCCGCACAAAACAGTGGCTGCTTATC
 CAGATCAACTAGTGCCAACATCTCGAGAGGCTGCAGTTCATTCTGACGCCAAATGAGTTCAGTGCCAG
 ACTTTCTACGCGCTTAGCCCTACTATGCACAGTCAAGCAACACAGGTGCCAATTAGTCAAAGCGATGGCT
 CAGCAGTGGCAGCCCAACACCATTGCAAAACAAATAAATACGGCACCAAGCCAGCAGCCCAACAAC
 TTTACAGATCCCACCTCCTCTCCAGCCATCAAGCATCTGCCAGGCCAGAACTCTGCACCCTAACCTC
 GCAGGCTTACAGGAAAGCATTTCTGACGTCAACCCTGCCTTGTTCCTCCAAGGAAAATGTTACAGTTG
 CACAGTCAAATCTACCAAGGACCGTTCTATGAGGAAAAGCTTTGACATGGGAGGAGAACTCTGTTGTC
 TGTCTGTCCCATGGTGCCGAAGGACTTGGGCAAATCTTTGTCTGTGCAAAACCTGATCAGGTCGACCCGAG
 GAACTGAATATACAACCTTTCAGGGAGTGAAGTGGCTCCAGAGGCAGCAAGATTTTTACCCCAAAT
 GGAGGGAATCAAATGTTTATAACTGATGAAGAGGTGGTCCCAGAGACAGACAGACTTTTGA
 TGCCGCACCGCAGCCTGCCAGGGAAGCTGCCTTTCATCAGACTCTAAGGACTGGAAGGTCACGATCA
 TCTCAGAGCATTGTAAGGCAGGAGAAAGTACAGATGCCCTCAGCTTGCCTCATGTCAAACCTGAAA

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAAGTTTAA

Protein Sequence: >RC219479 representing NM_019842
 Red=Cloning site Green=Tags(s)

```
MPRHHAGGEEGGAAGLWVKSGAAAAAGGGRLGSGMKDVESGRGRVLLNSAAARGDGLLLGTRAA TLGG
GGGGLRESRRGKQGARMSLLGKPLSYTSSQSCRRNVKYRRVQNYLYKVLERPRGWAFIYHAFVFLLVFGC
LILSVFSTIPEHTKLASSCLLILEFVMI VVFGLEFIIRIWSAGCCCRYRGWQGR LRFARKPFCVIDTIVL
IASIAVVS AKTQGNIFATSALRSLRFLQILRMVMDRRGGTWKLLGSVVYAHSKELITAWYIGFLVLI FS
SFLVYLVEKDANKEFSTYADALWWGTITLTTIGYGDKPTLTLWGRLLSAGFALLGISFFALPAGILGSGF
ALKVQEQRQKHFEKRRNPAANLIQC VWRSYAADEKSVSIATWPKHLKALHTCSPTKKEQGEASSQKLS
FKERVRMASPRGQSIKSRQASVGD RRSPSTDITAE GSPTKVQKSWSFNDRTRFRPSLR LKSSQPKPVIDA
DTALGTDDVYDEKGCQCDVSVEDLTPPLKTVIRAIRIMKFHVAKRKFKETLRPYDVKD VIEQYSAGHLDM
LCRIKSLQTRVDQILGKGQITSDKKSREKITA EHETDDLSMLGRVVKVEKQVQSIESKLDCLLDIYQQV
LRKGSASALALASFQIPPFCEQTS DYQSPVDSKDLSGSAQNSGCLSRSTSANISRGLQFILT PNEFSAQ
TFYALSPTMHSQATQVPI SQSDGSAVAANTIANQINTAPKPAAPTTLQIPPLPAIKHLPRPETLHPNP
AGLQESISDVTTCLVASKENVQVAQSNLTKDRSMRKS FDMGGETLLSVCMPV PKDLGKLSVQNLIRSTE
ELNIQLSGSESSGRSQDFYPKWRESKLFITDEEVGPEETETDTFDAAPQ PAREAAFASDSLRTGRSRS
SQSICKAGESTDALSLPHVKLK
```

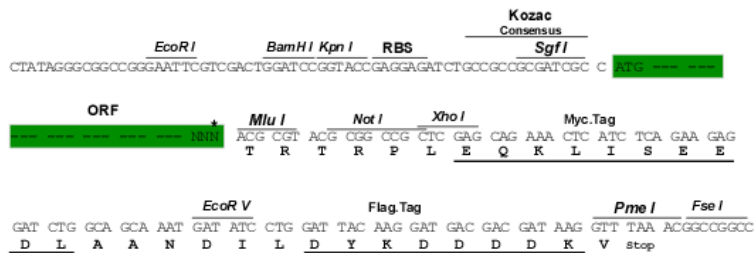
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6219_b04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



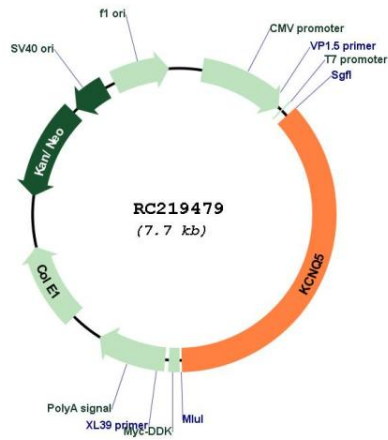
* The last codon before the Stop codon of the ORF

ACCN: NM_019842

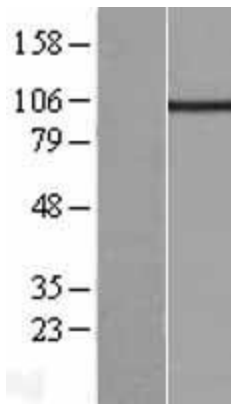
ORF Size: 2796 bp

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:	NM_019842.4
RefSeq Size:	3325 bp
RefSeq ORF:	2799 bp
Locus ID:	56479
UniProt ID:	Q9NR82
Cytogenetics:	6q13
Domains:	KCNQ_channel, ion_trans
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
MW:	102 kDa
Gene Summary:	This gene is a member of the KCNQ potassium channel gene family that is differentially expressed in subregions of the brain and in skeletal muscle. The protein encoded by this gene yields currents that activate slowly with depolarization and can form heteromeric channels with the protein encoded by the KCNQ3 gene. Currents expressed from this protein have voltage dependences and inhibitor sensitivities in common with M-currents. They are also inhibited by M1 muscarinic receptor activation. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2009]

Product images:



Circular map for RC219479



Western blot validation of overexpression lysate (Cat# [LY412712]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219479 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).