

Product datasheet for **RC219447**

Kv4.3 (KCND3) (NM_172198) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kv4.3 (KCND3) (NM_172198) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kv4.3
Synonyms:	BRGDA9; KCND3L; KCND3S; KSHIVB; KV4.3; SCA19; SCA22
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC219447 representing NM_172198.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCGGCCGGAGTTGCGGCTGGCTGCCTTTTGCCCGGGCTGCGGCCATCGGGTGGATGCCGGTGGCC
AACTGCCCATGCCCTGGCCCCGGCCGACAAGAACAAGCGGCAGGATGAGCTGATTGTCTCAACGTG
AGTGGGCGGAGGTTCCAGACCTGGAGGACCAGCTGGAGCGCTACCCGGACACCCTGCTGGGCAGCACG
GAGAAGGAGTTCTTCTTCAACGAGGACACCAAGGAGTACTTCTCGACCGGGACCCCGAGGTGTTCCGC
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GACGAGCTGGCCTTCTACGGCATCTCCCGGAGATCATCGGGGACTGCTGCTACGAGGAGTACAAGGAC
CGCAAGAGGGAGAACGCCGAGCGGCTCATGGACGACAACGACTCGGAGAACAACCAGGAGTCCATGCC
TCGCTCAGCTCCGCCAGACCATGTGGCGGGCCTTCGAGAACCCACACCAGCACGCTGGCCCTGGTC
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ACGGCGTGCCTATGATCTTACCGTGGAGTACCTCCTGCGGCTTTCGCGGCTCCAGCCGCTACCCG
TTCATCCGCAGCGTCATGAGCATCATCGACGTGGTGGCCATCATGCCCTACTACATCGGTCTGGTATG
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TTTTCCGCCACTCCAGGGCCTGCGGATCCTGGGCTACACACTGAAGAGCTGTGCCTCCGAAGTGGC
TTTCTTCTTCTCCCTCACCATGGCCATCATCATCTTTGCCACTGTGATGTTTTATGCCGAGAAGGGC
TCCTCGGCCAGCAAGTTCACAAGCATCCCTGCCTGTTTTGGTACACCATTGTACCATGACCACACTG
GGATACGGAGACATGGTGCCTAAGACGATTGCAGGGAAGATCTTCGGCTCCATCTGCTCCTTGAGTGGC
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GAAGAGGAGCACATGGGCAAGACCACCTCACTCATCGAGAGCCAGCATCATCACCTGCTGCACTGCCTG
GAAAAAACCACTAACCACGAGTTTATTGATGAGCAGATGTTTGGCAGAACTGCATGGAGAGTTCATG
CAGAACTACCCATCCACAAGAAGTCCCTCACTGTCCAGCCACCCAGGCCTCACTACCACCTGCTGCTCC
CGTCGTAGTAAGAAGACCACACCTGCCCAATTCTAACCTGCCAGCTACTCGCTGCGCAGCATGCAA
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TTGAAAGCAGACGACGGACTGAGACAACTGCAAAACATCCAGATCACCACAGCCATCATCAGCATC
CCCACTCCCCAGCGCTAACCCAGAGGGGAAAGTGGGCCACCCCTGCCAGCCAGGCCCAACAGC
AACATTCCTTCCATAGCCAGCAATGTTGTCAAGGTCTCCGCCCTTG
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Protein Sequence:

>Peptide sequence encoded by RC219447
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MAAGVAAWLPFARAAAIGWMPVANCPMPLAPADKNKRQDELIVLNVSGRRFQTWRTTLERYPDTLLGST
EKEFFFNEDTKEYFFDRDPEVFRVLFNFYRTGKLHYPRYECISAYDDELAFYGILPEIIGDCCYEYK
RKRENAERLMDDNSENQESMPSLSFRQTMWRAFENPHTSTLALVFYYVTGFFIAVSVITNVVETVPC
GTVPGSKELPCGERYSVAFFCLDTACVMIFTVEYLLRFAAPSRYRFRSVMISIDVVAIMPYYIGLVM
TNNEDVSGAFVTLRVFRVFRIFKFSRHSQGLRILGYTLKSCASELGFLLFSLTMAIIFATVMFYAEKG
SSASKFTSIPASFWYITVMTTLGYGDMVPKTIAGKIFGSI CSLSGVLVIALPVPVIVSNFSRIYHQNQ
RADKRRQKARLARIRVAKTGSNAYLHSCRNGLLNEALELGTPEEEHMGKTTSLIESQHHLHCL
EKTTNHEFIDEQMFQNCMESSMQNYPSTRSPSLSSHPGLTTTCCSRRSKTTHLPNSNLPATRLRSMQ
ELSTIHIQGEQPSLTSRSSLNLKADDGLRPNCKTSQITTAIISIPTPALTPEGESRPPASPSPNT
NIPSIASNVVKSAL
TRTRPLEQKLISEEDLAANDILDYKDDDDKV
```

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_172198

ORF Size: 1908 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:**
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_172198.3](#)

RefSeq Size: 2636 bp

RefSeq ORF: 1911 bp

Locus ID: 3752

UniProt ID: [Q9UK17](#)

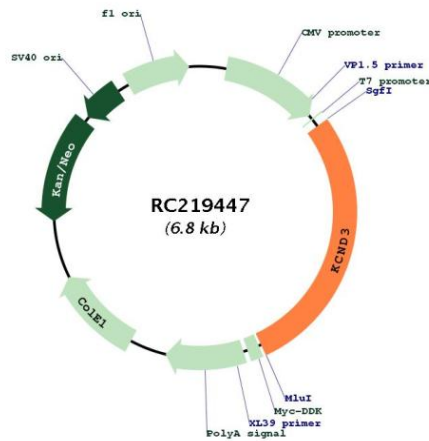
Cytogenetics: 1p13.2

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

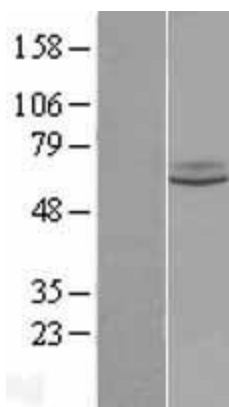
MW: 71.4 kDa

Gene Summary: Voltage-gated potassium (Kv) channels represent the most complex class of voltage-gated ion channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. Four sequence-related potassium channel genes - shaker, shaw, shab, and shal - have been identified in *Drosophila*, and each has been shown to have human homolog(s). This gene encodes a member of the potassium channel, voltage-gated, shal-related subfamily, members of which form voltage-activated A-type potassium ion channels and are prominent in the repolarization phase of the action potential. This member includes two isoforms with different sizes, which are encoded by alternatively spliced transcript variants of this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC219447



Western blot validation of overexpression lysate (Cat# [LY401549]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC222757] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).