

## Product datasheet for RC215266L1

#### OriGene Technologies, Inc.

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## Kv4.2 (KCND2) (NM\_012281) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: Kv4.2 (KCND2) (NM\_012281) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: Kv4.2

Synonyms: KV4.2; RK5

Mammalian Cell None

Selection:

Vector:pLenti-C-Myc-DDK (PS100064)E. coli Selection:Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC215266).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF.

ACCN: NM\_012281

ORF Size: 1890 bp



### Kv4.2 (KCND2) (NM\_012281) Human Tagged Lenti ORF Clone - RC215266L1

**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:** <u>NM 012281.2</u>

RefSeq Size: 5333 bp
RefSeq ORF: 1893 bp
Locus ID: 3751

UniProt ID: Q9NZV8

Cytogenetics: 7q31.31

**Domains:** BTB, K tetra, ion trans

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

**MW:** 70.4 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

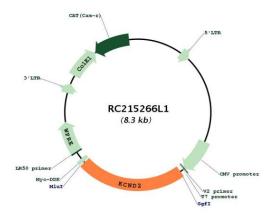
form voltage-activated A-type potassium ion channels and are prominent in the

repolarization phase of the action potential. This member mediates a rapidly inactivating, Atype outward potassium current which is not under the control of the N terminus as it is in

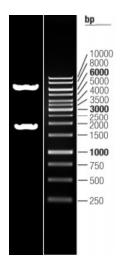
Shaker channels. [provided by RefSeq, Jul 2008]



# **Product images:**



Circular map for RC215266L1



Double digestion of RC215266L1 using Sgfl and Mlul