

### **Product datasheet for RC213421L4**

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OriGene Technologies, Inc.

# KCNQ4 (NM\_172163) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

**Product Name:** KCNQ4 (NM\_172163) Human Tagged Lenti ORF Clone

Tag: mGFP Symbol: KCNQ4

Synonyms: DFNA2; DFNA2A; KV7.4

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)

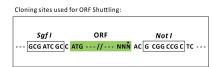
E. coli Selection: Chloramphenicol (34 ug/mL)

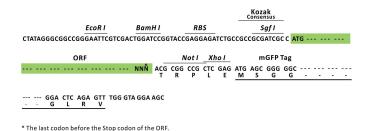
**ORF Nucleotide** The ORF insert of this clone is exactly the same as(RC213421).

Sequence:

**Restriction Sites:** Sgfl-Notl

**Cloning Scheme:** 





**ACCN:** NM\_172163

ORF Size: 1923 bp





### KCNQ4 (NM\_172163) Human Tagged Lenti ORF Clone - RC213421L4

**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 172163.1</u>

 RefSeq Size:
 2173 bp

 RefSeq ORF:
 1926 bp

 Locus ID:
 9132

 UniProt ID:
 P56696

**Cytogenetics:** 1p34.2

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

**MW:** 71 kDa

**Gene Summary:** The protein encoded by this gene forms a potassium channel that is thought to play a critical

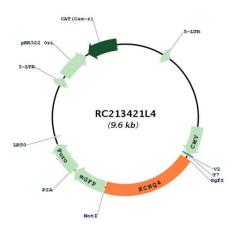
role in the regulation of neuronal excitability, particularly in sensory cells of the cochlea. The current generated by this channel is inhibited by M1 muscarinic acetylcholine receptors and activated by retigabine, a novel anti-convulsant drug. The encoded protein can form a homomultimeric potassium channel or possibly a heteromultimeric channel in association

with the protein encoded by the KCNQ3 gene. Defects in this gene are a cause of nonsyndromic sensorineural deafness type 2 (DFNA2), an autosomal dominant form of progressive hearing loss. Two transcript variants encoding different isoforms have been

found for this gene. [provided by RefSeq, Jul 2008]



## **Product images:**



Circular map for RC213421L4