

Product datasheet for RC220242L1

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OriGene Technologies, Inc.

KCNQ4 (NM_004700) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: KCNQ4 (NM_004700) Human Tagged Lenti ORF Clone

Tag: Myc-DDK
Symbol: KCNQ4

Synonyms: DFNA2; DFNA2A; KV7.4

Mammalian Cell None

Selection:

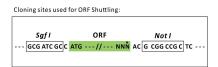
Vector:pLenti-C-Myc-DDK (PS100064)E. coli Selection:Chloramphenicol (34 ug/mL)

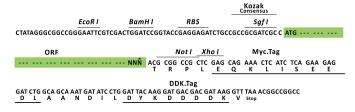
ORF Nucleotide The ORF insert of this clone is exactly the same as(RC220242).

Sequence:

Restriction Sites: Sgfl-Notl

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF.

ACCN: NM_004700

ORF Size: 2085 bp



KCNQ4 (NM_004700) Human Tagged Lenti ORF Clone - RC220242L1

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.

1p34.2

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 004700.2</u>

 RefSeq Size:
 2335 bp

 RefSeq ORF:
 2088 bp

 Locus ID:
 9132

 UniProt ID:
 P56696

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

MW: 76.9 kDa

Cytogenetics:

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

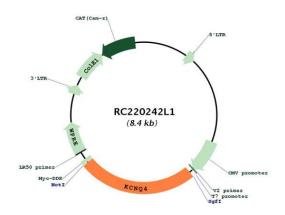
role in the regulation of neuronal excitability, particularly in sensory cells of the cochlea. The current generated by this channel is inhibited by M1 muscarinic acetylcholine receptors and activated by retigabine, a novel anti-convulsant drug. The encoded protein can form a homomultimeric potassium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

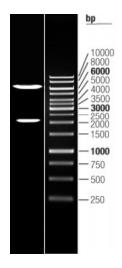
found for this gene. [provided by RefSeq, Jul 2008]



Product images:



Circular map for RC220242L1



Double digestion of RC220242L1 using Sgfl and Notl