

## Product datasheet for **RC220242L2V**

### **KCNQ4 (NM\_004700) Human Tagged ORF Clone Lentiviral Particle**

#### **Product data:**

Product Type:	Lentiviral Particles
Product Name:	KCNQ4 (NM_004700) Human Tagged ORF Clone Lentiviral Particle
Symbol:	KCNQ4
Synonyms:	DFNA2; DFNA2A; KV7.4
Mammalian Cell Selection:	None
Vector:	pLenti-C-mGFP (PS100071)
Tag:	mGFP
ACCN:	NM_004700
ORF Size:	2085 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC220242).
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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_004700.2</a>
RefSeq Size:	2335 bp
RefSeq ORF:	2088 bp
Locus ID:	9132
UniProt ID:	<a href="#">P56696</a>
Cytogenetics:	1p34.2
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
MW:	76.9 kDa



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**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]