

Product datasheet for RC212932L3

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OriGene Technologies, Inc.

KCNQ2 (NM_172107) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: KCNQ2 (NM_172107) Human Tagged Lenti ORF Clone

Tag: Myc-DDK
Symbol: KCNQ2

Synonyms: BFNC; DEE7; EBN; EBN1; ENB1; HNSPC; KCNA11; KV7.2

Mammalian Cell Puromycin

Selection:

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

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

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC212932).

Sequence:

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





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

ACCN: NM_172107

ORF Size: 2616 bp



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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 172107.2</u>

 RefSeq Size:
 3251 bp

 RefSeq ORF:
 2619 bp

 Locus ID:
 3785

 UniProt ID:
 O43526

 Cytogenetics:
 20q13.33

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

MW: 95.7 kDa

Gene Summary: The M channel is a slowly activating and deactivating potassium channel that plays a critical

role in the regulation of neuronal excitability. The M channel is formed by the association of the protein encoded by this gene and a related protein encoded by the KCNQ3 gene, both integral membrane proteins. M channel currents are inhibited by M1 muscarinic acetylcholine receptors and activated by retigabine, a novel anti-convulsant drug. Defects in this gene are a cause of benign familial neonatal convulsions type 1 (BFNC), also known as epilepsy, benign neonatal type 1 (EBN1). At least five transcript variants encoding five different isoforms have

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