

Product datasheet for RC212107L1V

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

Ionotropic Glutamate receptor 2 (GRIA2) (NM_000826) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type: Lentiviral Particles

Product Name: Ionotropic Glutamate receptor 2 (GRIA2) (NM_000826) Human Tagged ORF Clone Lentiviral

Particle

Symbol: GRIA2

Synonyms: GluA2; gluR-2; gluR-B; GluR-K2; GLUR2; GLURB; HBGR2; NEDLIB

Mammalian Cell

Selection:

None

Vector: pLenti-C-Myc-DDK (PS100064)

Tag:Myc-DDKACCN:NM_000826

ORF Size: 2649 bp

ORF Nucleotide

The ORF insert of this clone is exactly the same as(RC212107).

OTI Disclaimer:

Sequence:

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.

RefSeq: <u>NM 000826.3</u>

 RefSeq Size:
 5644 bp

 RefSeq ORF:
 2652 bp

 Locus ID:
 2891

 UniProt ID:
 P42262

 Cytogenetics:
 4q32.1

Domains: lig_chan, ANF_receptor





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Protein Families: Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane

Protein Pathways: Amyotrophic lateral sclerosis (ALS), Long-term depression, Long-term potentiation,

Neuroactive ligand-receptor interaction

MW: 98.91 kDa

Gene Summary: Glutamate receptors are the predominant excitatory neurotransmitter receptors in the

mammalian brain and are activated in a variety of normal neurophysiologic processes. This gene product belongs to a family of glutamate receptors that are sensitive to alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate (AMPA), and function as ligand-activated cation channels. These channels are assembled from 4 related subunits, GRIA1-4. The subunit encoded by this gene (GRIA2) is subject to RNA editing (CAG->CGG; Q->R) within the second transmembrane domain, which is thought to render the channel impermeable to Ca(2+). Human and animal studies suggest that pre-mRNA editing is essential for brain function, and defective GRIA2 RNA editing at the Q/R site may be relevant to amyotrophic lateral sclerosis (ALS) etiology. Alternative splicing, resulting in transcript variants encoding different isoforms, (including the flip and flop isoforms that vary in their signal transduction properties), has

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