

#### OriGene Technologies, Inc.

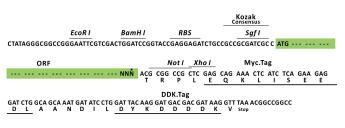
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# Product datasheet for RC223136L1

#### NMDAR2A (GRIN2A) (NM\_000833) Human Tagged Lenti ORF Clone

### **Product data:**

| Product Type:                | Expression Plasmids  |
|------------------------------|--|
| Product Name:                | NMDAR2A (GRIN2A) (NM_000833) Human Tagged Lenti ORF Clone  |
| Tag:                         | Myc-DDK  |
| Symbol:                      | NMDAR2A  |
| Synonyms:                    | EPND; FESD; GluN2A; LKS; NMDAR2A; NR2A   |
| Mammalian Cell<br>Selection: | None   |
| Vector:                      | pLenti-C-Myc-DDK (PS100064)  |
| E. coli Selection:           | Chloramphenicol (34 ug/mL)   |
| ORF Nucleotide<br>Sequence:  | The ORF insert of this clone is exactly the same as(RC223136).                                   |
| <b>Restriction Sites:</b>    | Sgfl-Notl  |
| Cloning Scheme:              |  |
|                              | Cloning sites used for ORF Shuttling:  |
|                              | Sgf I         ORF         Not I          GCG ATC GCC         ATG// NNN         AC G CGG CCG C TC |

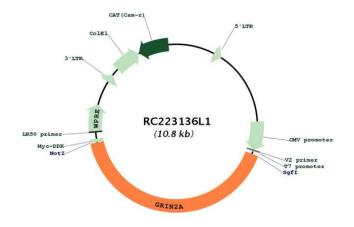


\* The last codon before the Stop codon of the ORF.



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#### Plasmid Map:



| ACCN:           | NM_000833   |
|-----------------|---|
| ORF Size:       | 4392 bp   |
| OTI Disclaimer: | Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <u>custsupport@origene.com</u> or by calling 301.340.3188 option 3 for pricing and delivery. |
|                 | 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. <u>More info</u>   |
| 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).  |

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## **ORIGENE** NMDAR2A (GRIN2A) (NM\_000833) Human Tagged Lenti ORF Clone – RC223136L1

| Reconstitution Method: | <ol> <li>Centrifuge at 5,000xg for 5min.</li> <li>Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>Close the tube and incubate for 10 minutes at room temperature.</li> <li>Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>  |
|------------------------|---|
| RefSeq:                | <u>NM 000833.2</u>  |
| RefSeq Size:           | 14450 bp  |
| RefSeq ORF:            | 4395 bp   |
| Locus ID:              | 2903  |
| UniProt ID:            | <u>Q12879</u>   |
| Cytogenetics:          | 16p13.2   |
| Protein Families:      | Druggable Genome, Ion Channels: Glutamate Receptors, Ion Channels: Sodium,<br>Transmembrane   |
| Protein Pathways:      | Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Calcium signaling pathway, Long-<br>term potentiation, Neuroactive ligand-receptor interaction, Systemic lupus erythematosus  |
| MW:                    | 165.3 kDa   |
| Gene Summary:          | This gene encodes a member of the glutamate-gated ion channel protein family. The encoded protein is an N-methyl-D-aspartate (NMDA) receptor subunit. NMDA receptors are both ligand-gated and voltage-dependent, and are involved in long-term potentiation, an activity-dependent increase in the efficiency of synaptic transmission thought to underlie certain kinds of memory and learning. These receptors are permeable to calcium ions, and activation results in a calcium influx into post-synaptic cells, which results in the activation of several signaling cascades. Disruption of this gene is associated with focal epilepsy and speech disorder with or without cognitive disability. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014] |

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