

## Product datasheet for **RG239771**

### GRID2 (NM\_001286838) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GRID2 (NM_001286838) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GRID2
Synonyms:	GluD2; SCAR18
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG239771 representing NM\_001286838.  
 Blue=ORF Red=Cloning site Green=Tag(s)

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**Protein Sequence:** >Peptide sequence encoded by RG239771  
 Blue=ORF Red=Cloning site Green=Tag(s)

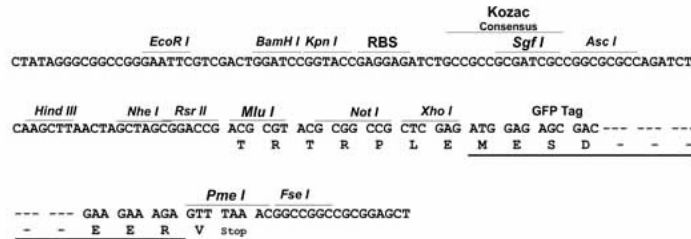
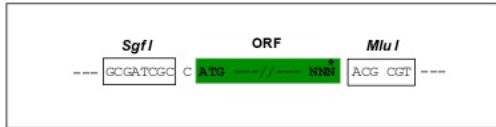
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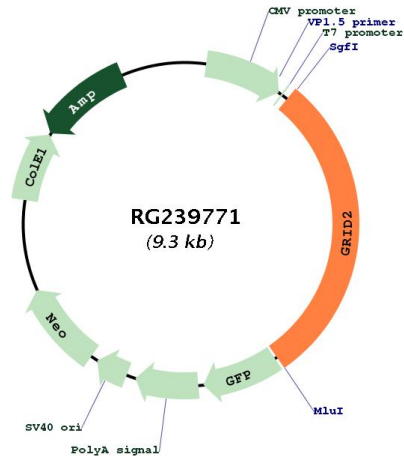
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



## Plasmid Map:



ACCN: NM\_001286838

ORF Size: 2736 bp

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).

RefSeq: [NM\\_001286838.1](#), [NP\\_001273767.1](#)

RefSeq Size: 5069 bp

RefSeq ORF: 2739 bp

Locus ID: 2895

UniProt ID: [O43424](#)

Cytogenetics: 4q22.1-q22.2

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

Protein Pathways: Long-term depression, Neuroactive ligand-receptor interaction

MW: 103.3 kDa

**Gene Summary:**

The protein encoded by this gene is a member of the family of ionotropic glutamate receptors which are the predominant excitatory neurotransmitter receptors in the mammalian brain. The encoded protein is a multi-pass membrane protein that is expressed selectively in cerebellar Purkinje cells. A point mutation in the mouse ortholog, associated with the phenotype named 'lurcher', in the heterozygous state leads to ataxia resulting from selective, cell-autonomous apoptosis of cerebellar Purkinje cells during postnatal development. Mice homozygous for this mutation die shortly after birth from massive loss of mid- and hindbrain neurons during late embryogenesis. This protein also plays a role in synapse organization between parallel fibers and Purkinje cells. Alternate splicing results in multiple transcript variants encoding distinct isoforms. Mutations in this gene cause cerebellar ataxia in humans. [provided by RefSeq, Apr 2014]