

Product datasheet for **RC239771**

GRID2 (NM_001286838) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRID2 (NM_001286838) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GRID2
Synonyms:	GluD2; SCAR18
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide
Sequence:

>RC239771 representing NM_001286838
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

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TCCATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGAT AAGGTTTAA

Protein Sequence: >RC239771 representing NM_001286838
 Red=Cloning site Green=Tags(s)

MEVFPFLVLVSVWSRTWDSANADSIHIGAI FDES AKK DDEVFRTAVGDLNQNEEILQTEKITFSVTFV
 DGNPFQAVQEDIRGIQEFLDKVSQQGMDVALQVENNINKMITTLFDTMRIEELNRYRDLRRAILVMN
 PATAKSFITEVVETNLVAFDCHWIIINEEINDVDVQELVRRSIGRLTIIRQTFFVPQNISQRCFRGNHRI
 SSTLCDPKDPFAQNMESINLYIYDVL L LANA FHKKLEDRKWHSMASL SCIRKNSKPWQGGRSMLTIKK
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 VTVLEEPFVMVSENVLGPKKYQGF SIDVLDALSNYLGFNIEIYVAPDHKYGSPQEDGTWNLV GELVFK
 RADIGISALTITPDRENVVDFTRYMDYSVGVLLRRAEKTVDMFACLAPFDLSLWACIAGTVLLVGLLVY
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 KEDDK EIDLEHLHRRVNSLCTDDSPHKQFSTSSIDL TPLDIDLTPTRQALEQISDFRNHTITTTTFIPE
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 SI

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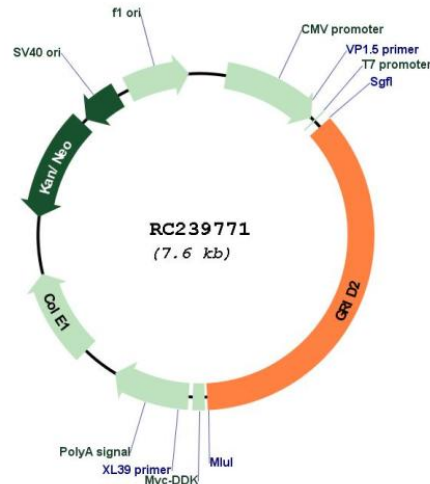
Restriction Sites:

SgfI-MluI

Cloning Scheme:



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).

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: [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:	<p>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]</p>