

Product datasheet for **SC123987**

GRID2 (NM_001510) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRID2 (NM_001510) Human Untagged Clone
Tag:	Tag Free
Symbol:	GRID2
Synonyms:	GluD2; SCAR18
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None



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Fully Sequenced ORF: >NCBI ORF sequence for NM_001510, the custom clone sequence may differ by one or more nucleotides

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ATGGAAGTTTTCCCCTTCTCTGGTTTTGTCGCTCGGTGGTCTCGAACCTGGGACTCGGCGAATGCGG
ATTCGATCATTACATCGGAGCAATTTTTGATGAATCTGCCAAAAGGATGATGAGGTATTTCCGACTGC
GGTTGGTACCTTAACCAGAATGAGGAGATCTTACAGACTGAGAAAATCACATTTTCAGTGACGTTTGT
GATGGCAACAACCTTTCCAAGCAGTTCAAGAAGCCTGTGAACCTATGAATCAAGGCATCTTGGCCCTGG
TCAGCTCCATTGGCTGCACGTCAGCAGGATCCCTCCAGTCTTTGGCAGACGCCATGCATATCCCCACCT
CTTCATTACGCGCTCAACAGCTGGGACCCCAAGGAGTGGCTGTGGACTCACCCGGAGCAACAGGAATGAT
GACTACACTCTCTCAGTTCGCCACCTGTCTACTTGCATGATGTTATCCTAAGAGTGGTACAGAGTATG
CCTGGCAGAAATTCATTATTTCTATGATAGTGAATACGATATCCGTGGAATACAGGAGTCTTGGACAA
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CTCTTTGACACCATGAGAATAGAAGAACTGAATCGCTATCGAGACACTCTTAGGCGAGCGATCCTTGTTA
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TTAACGATTATTCGCGAGACATTTCCAGTTCGCCAGAACATAAGTCAGCGGTGTTTCCGTGGCAACCATC
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TCTACCTCTTGAAGTGGCTTAATCCCCACGATTACAAATGGGATCAATGACGTCTACTACTCTCTACAA
CTCCATGTGGTTTGTGTATGGATCTTTTGTACAACAAGGCGGGGAAGTCCCGTACACGACTCTGGCTACC
CGAATGATGATGGGGCTTGGTGGCTATTTGCTTTGATTGTTATCTCATCTTACACGGCAACCTCGCTG
CTTTCCTCACTATTACACGCATTGAAAGTTCATCCAGTCTCTCCAGGACCTTTCCAAGCAACAGAAAT
CCCTTATGGCACAGTCTAGACTCTGCGGTATATGAGCATGTCCGCATGAAAGGACTGAATCCTTTTGGAG
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CAGAGCAGATCCAGACTTTAGCCGCACACTGTCAGCTAAAGCTGCTTCTGGTTTCACTTTTGGCAACGT
GCCTGAGCACCGAACTGGCCCTTTTAGGCACAGGGCACCTAATGGGGCTTTTTCAGGAGTCTATAAAA
ACAATGTCATCTATTCTTATCAACCAACTCTACCCTGGGGCTCAATCTGGGTAATGATCCAGACCGAG
GCACCTCCATATGA
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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_001510 unedited ATTTTTAATACGACTCACTATAGGGCGGCCGAATTCGGCACGAGGTCAAACCTTTTGG ACTGTTTGAAAAAATTTGGAAGAAAATCCATCCTCCAAGAGAATCGGCGTAGGA GGAGATGGAAGTTTTCCCTTTCTTTGGTTTTGTCCGTCTGGTGGTCTCGAACCTGGGA CTCGGCGAATGCGGATTCGATCATTACATCGGAGCAATTTTGTGAATCTGCCAAAAA GGATGATGAGGTATTTCCGACTGCGGTTGGTACCTTAACCAGAATGAGGAGATTTACA GACTGAGAAAATCACATTTTCAGTGACGTTTGTGATGGCAACAACCTTTCCAAGCAGT TCAAGAAGCCTGTGAACCTTATGAATCAAGGCATCTTGGCCCTGGTCAGCTCCATTGGCTG CACGTCAGCAGGATCCCTCCAGTCTTTGGCAGACGCCATGCATATCCCCACCTTTCAT TCAGCGCTCAACAGCTGGGACCCCAAGGAGTGGCTGTGGACTCACCCGGAGCAACAGGAA TGATGACTACACTCTCTCAGTTCGCCACCTGTCTACTTGCATGATGTTATCCTAAGAGT GGTACAGAGTATGCCTGGCAGAAATTCATTATATTCTATGATAGTGAATACGATATCCG TGGAAATACAGGAGTTCTGGNACAAAGTCTCTCCAGGAACCTTTCCAGCANACAGAAATC CTTATTGCACAGTCTAGACTCTGCGGTATATGAGCATGTCCGCTGAN
3' Read Nucleotide Sequence:	>OriGene 3' read for NM_001510 unedited CATGGCACTTCCAGGCCAGGAGAGGCACTGGGGAGGGGTCACAGGGATGCCACCCGGGAT CTGTTCAGGAAACAGCTATGACCGCGCCGAATCTAGAGTCGAGTTTTTTTTTGGGGTT TTTTTTTTTTTTTAAAAACATTTTTATTATACAAATTTTAAACAAATTATACCCAG AAAGCTCTGTCACTCATAACTGAGGCTCCAAAAATGTTTTGTGTGTTTGTAAATAGGCG ATACATCAAAATAAGCCTATTTTAAATATTGTACATGGTTAACAGTTTGTGATAGCTAA AATCACTGCAACATCTGGTATGTCCTATATAGCTTGGTGTAAAGATTTTTTTGTTTTAA AATCAAAGTTGTAATGAGATCATGAATGTTACAAGGGAAAACAAGTTGTGCATGCACTT AGTTACTTGTTACCCTGGAAACAAAATGGTTTTTGCATGATAAGAAATTTTTCTGCCTTA CACAGTAGACAATATTTGAAGATTTAGTACAAAACAGTGACAATACAAGATGCTCCCCAG AACAGAATTAGCATCAAAATATAATATATCTTAAGAATATACCTTTTAAATTTCTCCTAAA GCAAAATCATAGGTTGATTCTATATCAATCCTAACCACAGAATGAGTTAGAATAAAGT AAGTGTATGGCTGCCTATAAACACAAATNAATTCTTCTACTTACCACATTTAATTT TAGGATAACAACNAAGTTCATTCACATTTTCTAAAAGN
Restriction Sites:	NotI-NotI
ACCN:	NM_001510
Insert Size:	4000 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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_001510.1</u> , <u>NP_001501.1</u>

RefSeq Size:	5354 bp
RefSeq ORF:	3024 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
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> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>