

## Product datasheet for **RG215549**

### GRIN3A (NM\_133445) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** GRIN3A (NM\_133445) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** GRIN3A  
**Synonyms:** GluN3A; NMDAR-L; NMDAR3A; NR3A  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG215549 representing NM\_133445  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGGAGACTGAGTTTGTGGTGGCTGCTGAGCAGGGTCTGTCTGCTGTTGCCGCCGCCCTGCGCACTGG  
 TGCTGGCCGGGGTGCCAGCTCCTCCTCGCACCCGACCCCTGCCAGATCCTCAAGCGCATCGGGCACGC  
 GGTGAGGGTGGGCGGGTGCACCTGCAGCCCTGGACCACCGCCCCGCGCGCCAGCCGCGCTCCGGAC  
 GACAGCCGAGCAGGAGCCAGAGGGATGAGCCGGAGCCAGGGACTAGGCGGTCCCCGCGCCCTCGCCGG  
 GCGCACGCTGGTTGGGGAGCACCTGCATGGCCGGGGCCCGCGGCTCCCGTAAGCCCGGGGAGGGCGC  
 CAGGGCGGAGGCCCTGTGGCCACGGGACGCCCTCCTATTTGCCGTGGACAACCTGAACCGCGTGAAGGG  
 CTGCTACCCCTACAACCTGTCTTTGGAAGTAGTGATGGCCATCGAGGCAGGCCTGGGCGATCTGCCACTTT  
 TGCCCTTCTCCTCCCCTAGTTCGCCATGGAGCAGTGACCCCTTCTCCTTCTGCAAAGTGTGTGCCATAC  
 CGTGGTGGTGCAAGGGGTGTCCGGCGTGTCTCGCCTTCCCCAGAGCCAGGGCGAAATGATGGAGCTCGAC  
 TTGGTCAGCTTAGTCTGCACATTCCAGTGATCAGCATCGTGCCACAGAGTTTCCACGGGAGAGTCAGA  
 ATCCCCTTCACTACAACCTGAGTTTAGAAAATTCATTAAGTTCTGATGCTGATGTCACTGTCTCAATCCT  
 GACCATGAACAACCTGGTACAATTTAGCTTGTGGTGTGCCAGGAAGACTGGAACATCACCGACTCCCTC  
 CTCCTTACCCAGAATAATCCAAGTTCCACCTTGGTTCTATCATCAACATCACCGCTAACCTCCCCTCCA  
 CCCAGGACCTCTTGAGCTTCTACAGATCCAGCTTGAGAGTATTAAGAACAGCACACCCACAGTGGTGAT  
 GTTTGGCTGCGACATGGAAGTATCCGGCGGATTTTCGAAATTACAACCCAGTTTGGGGTATGCCCCCT  
 GAACCTCGTTGGGTGCTGGGAGATTCCCAGAATGTGGAGAACTGAGGACAGAGGGTCTGCCCTTAGGGC  
 TCATTGCTCATGGAAAAACAACAGTCTGTCTTTGAGCACTACGTACAAGATGCTATGGAGCTGGTCGC  
 AAGAGCTGTAGCCACAGCCACCATGATCCAACCAGAACTTGCTCTCATTCCAGCAGCATGAACTGCATG  
 GAGGTGGAACACTACAAATCTCACTTCAGGACAATATTTATCAAGGTTTCTAGCCAATACCACTTTTCAGG  
 GCCTCAGTGGTTCCATCAGAGTAAAGGTTCCACCATCGTCAGCTCAGAAAACAACCTTTTTCATCTGGAA  
 TCTTCAACATGACCCCATGGGAAAGCAATGTGGACCCGCTTGGGCGAGCTGGCAGGGGGAAAGATTGTC



[View online »](#)

ATGGACTATGGAATATGGCCAGAGCAGGCCAGAGACACAAAACCCACTTCCAACATCCAAGTAAGCTAC  
 ACTTGAGAGTGGTTACCCTGATTGAGCATCCTTTTGTCTTACAAGGGAGGTAGATGATGAAGGCTTGTG  
 CCCTGCTGGCCAACTCTGTCTAGACCCCATGACTAATGACTCTTCCACATTGGACAGCCTTTTTAGCAGC  
 CTCCATAGCAGTAATGATACAGTGCCCATTAATCAAGAAGTGTGCTATGGATATTGCATTGATCTGC  
 TGGAAAAGATAGCAGAAGACATGAACCTTGACTTCGACCTCTATTGTAGGGGATGGAAAGTATGGAGC  
 ATGGAAAATGGGCACTGGACTGGGCTAGTGGGTGATCTCCTGAGAGGGACTGCCACATGGCAGTCACT  
 TCCTTTAGCATCAATACTGCACGGACCCAGGTGATAGATTTACCAGCCCTTTCTCTCCACCAGCTTGG  
 GCATCTTAGTGAGGACCGAGATACAGCAGCTCCATTGGAGCCTTCATGTGGCCACTCCACTGGACAAT  
 GTGGCTGGGATTTTTGTGGCTCTGCACATCACTGCCGTCTTCTCACTCTGTATGAATGGAAGAGTCCA  
 TTTGGTTTGACTCCCAAGGGGCGAAATAGAAGTAAAGTCTTCTCCTTTTCTTTCAGCCTTGAACATCTGTT  
 ATGCCCTCTTGTGGCAGAACAGTGGCCATCAAACCTCCAAAATGTTGGACTGGAAGGTTTCTAATGAA  
 CCTTTGGCCATTTTCTGTATGTTTTGCCTTCCACATACACGGCAAACCTGGCTGCTGCATGGTAGGT  
 GAGAAGATCTATGAAGAGCTTTCTGGAATACATGACCCCAAGTTACATCATCCTTCCAAGGATCCGCT  
 TTGGAAGTGTCCGAGAAAGCAGTGTGAAGATTATGTGAGACAAAGTTCCAGAGATGCATGAATATAT  
 GAGAAGTACAATGTTCCAGCCACCCCTGATGGAGTGGAGTATCTGAAGAAGATCCAGAGAACTAGAC  
 GCCTTCATCATGGACAAAGCCCTTCTGGATTATGAAGTGTCAATAGATGTGACTGCAAACCTTCTACTG  
 TGGGAAGCCATTTGCCATAGAAGGATACGGCATTGGCCTCCACCCAACTCTCCATTGACCCGCAACAT  
 ATCCGAGCTAATCAGTCAATACAAGTACATGGGTTTATGGATATGCTCCATGACAAGTGGTACAGGGTG  
 GTTCCCTGTGGCAAGAGAAGTTTTGCTGTACGGAGACTTTGCAAATGGGCATCAAACACTTCTCTGGGC  
 TCTTTGTGCTGTGTGCATTGGATTTGGTCTGTCCATTTTGACCACCATTTGGTGAGCACATAGTATACAG  
 GCTGCTGTACCAGAAATCAAAAACAAATCCAAGTGAATACTGGCTCCACACCAGCCAGAGATTACAC  
 AGAGCAATAAATACATCATTTATAGAGGAAAAGCAGCAGCATTTCAAGACCAAACGTGTGAAAAGAGGT  
 CTAATGTGGGACCCCGTACGCTTACCGTATGGAATACTTCAATCTGAGTCATGACAACCCAGCGGAATA  
 CATCTTTAGTGATGAGGAAGGACAAAACAGCTGGGCATCCAGATCCACCAGGACATCCCCCTCCCTCCA  
 AGGAGAAGAGAGCTCCCTGCCTTGCAGGACCAATGGGAAGCAGACTCCCTAAATGTATCTCGGAACT  
 CAGTGATGCAGGAACTCTCAGAGCTCGAGAAGCAGATTACAGTGTCCGTCAGGAGCTGCAGCTGGCTGT  
 GAGCAGGAAAACGGAGCTGGAGGAGTATCAAAGGACAAGTCGGACTTGTGAGTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG215549 representing NM\_133445  
 Red=Cloning site Green=Tags(s)

MRRLSLWWLLSRVCLLLPPPCALVLAGVPSSSSHPQCQILKRIGHAVRVGAVHLQPWTTAPRAASRAPD  
 DSRAGAQRDEPEPGTRRSPAPSPGARWLGSTLHGRGPPGSRKPGEGARAEALWPRDALLFAVDNLRVEG  
 LLPYNLSLEVVMAIEAGLGDLPLLPFSSPSSPWSSDPFSFLQSVCHTVVVQVQSALLAFPQSOGEMMELD  
 LVSLVLHIPVISIVRHEFPRESQNPQLHLQSLLENSLSSDADVTVSILTMNNWYNFSLLLCQEDWNITDFL  
 LLTQNNKFHLGSIINITANLPSTQDLLSFLQIQLESIKNSTPTVVMFGCDMESIRRIIFEITTFQGVMP  
 ELRWVLGDSQNV EELRTEGLPLGLIAHGKTTQSVFEHYVQDAMELVARAVATATMIQPELALIPSTMNCM  
 EVETTNLTSQYLSRFLANTTFRGLSGSIRVKGSTIVSSENNFFIWNLQHDPMPGKPMWTRLGWSWQGGKIV  
 MDYGIWPEQAQRHKTHFQHPKSLHLRVVTLIEHPFVFTREVDDEGLCPAGQLCLDPMTNDSSLDLSS  
 LHSSNDTVPKFKKCCYGYCIDLLEKIAEDMNFDFLYIVGDGKYGAWKNGHWGLVGDLLRGTAHMAVT  
 SFSINTARSQVIDFTSPFFSTSLGILVRRTRDAAPIGAFMWPLHWTMMLGIFVALHITAVFLTYEWKSP  
 FGLTPKGRNRKVFSSALNICYALLFGRVVAIKPKKWTGRFLMNLWAIKCFMFLSTYTANLAAMVVG  
 EKIEELSGIHDPKLLHPSQGFRTGTVRESSAEDYVRQSFPEMHEYMRRYVNPATPDGVEYLKNDPEKLD  
 AFIMDKALLDYEVSIDADCKLLTVGKPFVIEGYGIGLPPNSPLTANISELISQYKSHGFMMDMLHDKWYRV  
 VPCGKRFAVTETLQMGIKHFSGLFVLLCIGFGLSILTITGEHIVYRLLLPRIKKNKSKLQYWLHTSQRLH  
 RAINTSFIIEKQHFKTRVEKRSNVGPRQLTVWNTSNLSDNRRKYIFSDEEGQNQLGIQIHQDIPLPP  
 RRRELPAALRTTNGKADSLNVSRSVMQELSELEKQIQVIRQELQLAVSRKTELEEYQRTSRTCES

TRTRPLE - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_133445

**ORF Size:** 3345 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 [custsupport@origene.com](mailto:custsupport@origene.com) 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. [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.

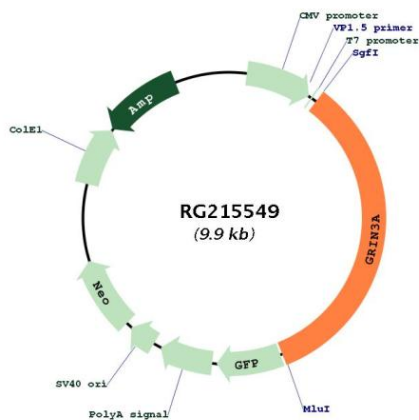
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**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\\_133445.1, NP\\_597702.1](#)  
**RefSeq Size:** 7770 bp  
**RefSeq ORF:** 3348 bp  
**Locus ID:** 116443  
**UniProt ID:** [Q8TCU5](#)  
**Cytogenetics:** 9q31.1  
**Protein Families:** Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane  
**Protein Pathways:** Neuroactive ligand-receptor interaction  
**Gene Summary:** This gene encodes a subunit of the N-methyl-D-aspartate (NMDA) receptors, which belong to the superfamily of glutamate-regulated ion channels, and function in physiological and pathological processes in the central nervous system. This subunit shows greater than 90% identity to the corresponding subunit in rat. Studies in the knockout mouse deficient in this subunit suggest that this gene may be involved in the development of synaptic elements by modulating NMDA receptor activity. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RG215549