

Product datasheet for RC215549

GRIN3A (NM_133445) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRIN3A (NM_133445) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GRIN3A
Synonyms:	GluN3A; NMDAR-L; NMDAR3A; NR3A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC215549 representing NM_133445 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGGAGACTGAGTTTGTGGTGGCTGCTGAGCAGGGTCTGTCTGCTGTTGCCGCCGCCCTGCGCACTGG
TGCTGGCCGGGGTGCCAGCTCCTCCTCGCACCCGACCCCTGCCAGATCCTCAAGCGCATCGGGCACGC
GGTGAGGGTGGGCGGGTGCCTTGACGCCCTGGACCACCGCCCCGCGCGCCAGCCGCTCCGGAC
GACAGCCGAGCAGGAGCCAGAGGGATGAGCCGGAGCCAGGGACTAGGCGGTCCCCGCGCCCTCGCCGG
GCGCACGCTGGTTGGGGAGCACCTGCATGGCCGGGGCCCGCGGCTCCCGTAAGCCCGGGGAGGGCGC
CAGGGCGGAGGCCCTGTGGCCACGGGACGCCCTCCTATTTGCCGTGGACAACCTGAACCGGTGGAAGGG
CTGCTACCTACAACCTGTCTTTGGAAGTAGTGATGGCCATCGAGGCAGGCCCTGGGCGATCTGCCACTTT
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CGTGGTGGTGCAAGGGGTGTGGCGCTGCTCGCCTTCCCCAGAGCCAGGGCGAAATGATGGAGCTCGAC
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GACCATGAACAACCTGGTACAATTTAGCTTGTGGTGTGCCAGGAAGACTGGAACATCACCGACTCCCTC
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CCAGGACCTCTTGAGCTTCTACAGATCCAGCTTGAGAGTATTAAAGAACAGCACACCCACAGTGGTGAT
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TCATTGCTCATGGAAAAACAACAGCTGTCTTTGAGCACTACGTACAAGATGCTATGGAGCTGGTCGC
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ATGGACTATGGAATATGGCCAGAGCAGGCCAGAGACACAAAACCCACTTCCAACATCCAAGTAAGCTAC
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 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC215549 representing NM_133445
 Red=Cloning site Green=Tags(s)

MRRLSLWVLLSRVCLLLPPPCALVLAGVPSSSSHPQCQILKRIGHAVRVGAVHLQPWTTAPRAASRAPD
 DSRAGAQRDEPEPGTRRSPAPSPGARWLGSTLHGRGPPGSRKPGEGARAEALWPRDALLFAVDNLNRVEG
 LLPYNLSLEVMAIEAGLDLPLLPFSSPSSPSSDPFSLQSVCHTVVQVQSALLAFMQSQGEMMELD
 LVSLVLHIPVISIVRHEFPRESQNPQLHLQLSLENSLSSDADVTVSILTMNNWYNFSLLLCQEDWNIIDFL
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 FGLTPKGRNRKVFSSALNICYALLFGRTVAIKPPKWTGRFLMNLWEIFCMFCLSTYANLAAVMVG
 EKIEEELSGIHDPKLLHPSQGFRTVRESSAEDYVRQSFPEMHEYMRRYVNPATPDGVEYLKNDPEKLD
 AFIMDKALLDYEVSIDADCKLLTVGKPFATIEGYGIGLPPNSPLTANISELISQYKSHGFMMLHDKWYRV
 VPCGKRSAVAVTETLQMGIKHFSGLFVLLCIGFGLSILTTIGEHIYRLLLPRIKKNKSKLQYWLHTSQRLH
 RAINTSFIEEKQHFKTKRVEKRSNVGPRQLTVWNTSNLSDNRRKYIFSDEEQNQLGIQIHQDIPLPP
 RRRELPAALRTTNGKADSLNVSRSVMQELSELEKIQVIRQELQLAVSRKTELEEYQRTSRTCES

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8012_b03.zip

Restriction Sites: SgfI-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 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

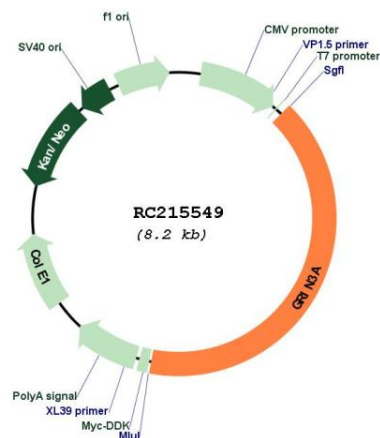
Protein Families: Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane

Protein Pathways: Neuroactive ligand-receptor interaction

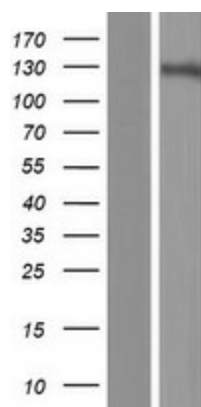
MW: 125.3 kDa

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]

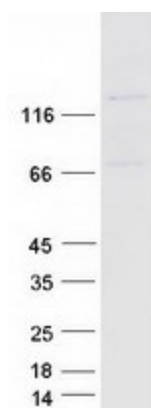
Product images:



Circular map for RC215549



Western blot validation of overexpression lysate (Cat# [LY408786]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215549 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GRIN3A protein (Cat# [TP315549]). The protein was produced from HEK293T cells transfected with GRIN3A cDNA clone (Cat# RC215549) using MegaTran 2.0 (Cat# [TT210002]).