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Product datasheet for RG211423

NMDAR2C (GRIN2C) (NM_000835) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NMDAR2C (GRIN2C) (NM_000835) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NMDAR2C
Synonyms:	GluN2C; NMDAR2C; NR2C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG211423 representing NM_000835
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGTGGGGCCCTGGGGCCGGCCCTGTTGCTCACCTCGCTCTTCGGTGCCTGGGCAGGGCTGGGTCCGG
GGCAGGGCGAGCAGGGCATGACGGTGGCCGTGGTGTTTAGCAGCTCAGGGCCGCCCCAGGCCCAGTTCCG
TGCCCGCCTCACCCCCCAGAGCTTCCTGGACCTACCCCTGGAGATCCAGCCGCTCACAGTTGGGGTCAAC
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TCTTTGAGGACAACGTGGACACCGAGGCGGTGGCCCAGATCCTTGACTTCATCTCCTCCCAGACCCATGT
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TGGAACGGCATGATTGGGGAGGTGTACTACAAGCGGGCAGACATGGCCATCGGCTCCCTCACCATCAATG
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ACTCTGGGGCTGGGCACAGGCTACAGAGACAGTGGGGGACTGGACGAGATCAGCAGGGTAGCCCGTGGGA
CGCAAGGCTTCCCGGGACCCTGCACCTGGAGACGGATCTCCAGTCTGGAGTCAGAAGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG211423 representing NM_000835
Red=Cloning site Green=Tags(s)

MGGALGPALLLTSLFGAWAGLGPGQGEQGMTVAVVFSSSGPPQAQFRARLTPQSFLDLPLEIQPLTVGVN
TTNPSSLLTQICGLLGAAHVHGIVFEDNVDTEAVAQILDFISSQTHVPILSISGGSAVVLTPKEPGSAFL
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SSLDRATRTIENWGGGRRAPPPSPCPTPRSGPSPCLPTPDPPPEPSPTGWGPPDGGRAALVRRAPQPPGR
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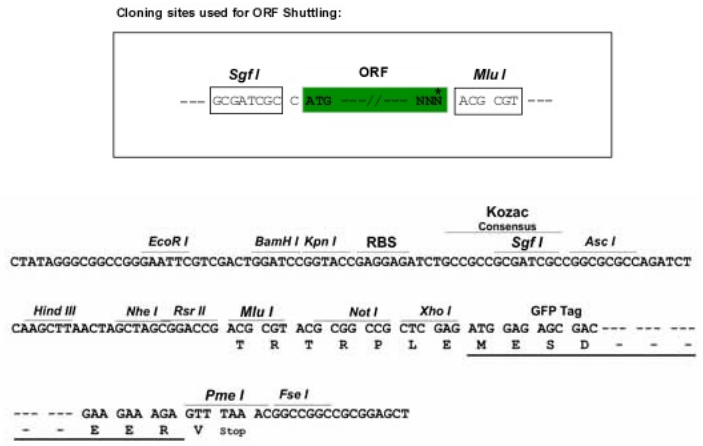
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



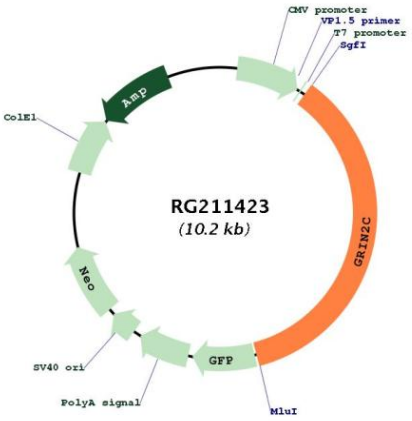
ACCN: NM_000835

ORF Size: 3699 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_000835.3, NP_000826.2
RefSeq Size:	4298 bp
RefSeq ORF:	3702 bp
Locus ID:	2905
UniProt ID:	Q14957
Cytogenetics:	17q25.1
Protein Families:	Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane
Protein Pathways:	Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Calcium signaling pathway, Long-term potentiation, Neuroactive ligand-receptor interaction

Gene Summary: This gene encodes a subunit of the N-methyl-D-aspartate (NMDA) receptor, which is a subtype of ionotropic glutamate receptor. NMDA receptors are found in the central nervous system, are permeable to cations and have an important role in physiological processes such as learning, memory, and synaptic development. The receptor is a tetramer of different subunits (typically heterodimer of subunit 1 with one or more of subunits 2A-D), forming a channel that is permeable to calcium, potassium, and sodium, and whose properties are determined by subunit composition. Alterations in the subunit composition of the receptor are associated with pathophysiological conditions such as Parkinson's disease, Alzheimer's disease, depression, and schizophrenia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jun 2013]

Product images:



Circular map for RG211423