

Product datasheet for **MG220972**

Grin2d (NM_008172) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Grin2d (NM_008172) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Grin2d
Synonyms: GluN2D; NMDAR2D; NR2D
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG220972 representing NM_008172
 Red=Cloning site Blue=ORF Green=Tags(s)

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Protein Sequence: >MG220972 representing NM_008172
 Red=Cloning site Green=Tags(s)

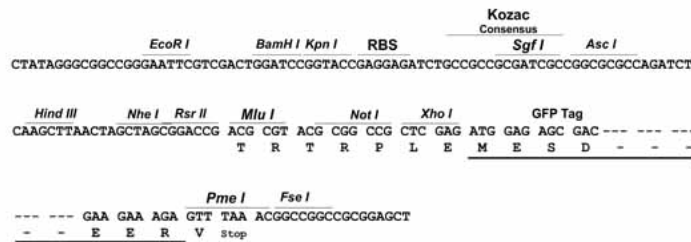
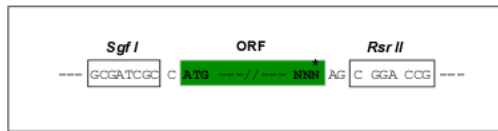
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SGPTRRRLE - GFP Tag - V

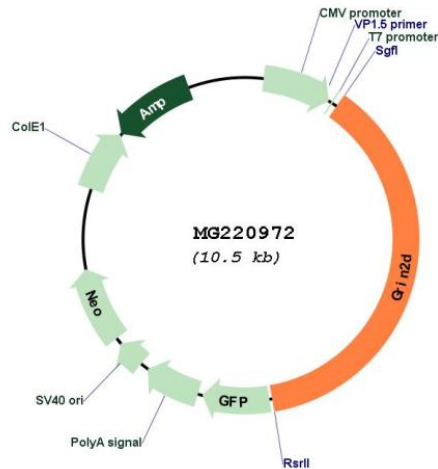
Restriction Sites: SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_008172

ORF Size: 3969 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_008172.2](#), [NP_032198.2](#)

RefSeq Size: 4383 bp

RefSeq ORF: 3972 bp

Locus ID: 14814

UniProt ID: [Q03391](#)

Cytogenetics: 7 29.54 cM

Gene Summary:

Component of NMDA receptor complexes that function as heterotetrameric, ligand-gated ion channels with high calcium permeability and voltage-dependent sensitivity to magnesium. Channel activation requires binding of the neurotransmitter glutamate to the epsilon subunit, glycine binding to the zeta subunit, plus membrane depolarization to eliminate channel inhibition by Mg(2+) (PubMed:1385220). Sensitivity to glutamate and channel kinetics depend on the subunit composition (Probable).[UniProtKB/Swiss-Prot Function]