

Product datasheet for **MG227166**

Cacna1a (NM_007578) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cacna1a (NM_007578) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cacna1a
Synonyms:	alpha1A; APCA; BI; Caca1a; Cacn1a4; Cav2.1; Ccha1a; EA2; FHM; HPCA; Ia; MHP; MHP1; nmf352
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG227166 representing NM_007578 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**GCGATCGCC**

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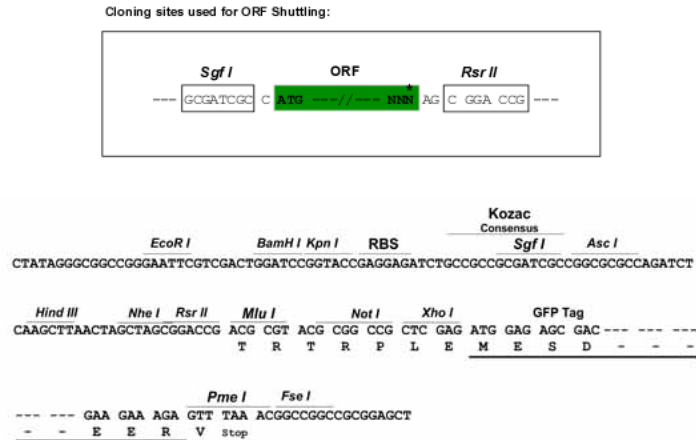
Protein Sequence: >MG227166 representing NM_007578
 Red=Cloning site Green=Tags(s)

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```

SGPTRRRLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja1525_c01.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:


ACCN: NM_007578

ORF Size: 7104 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.

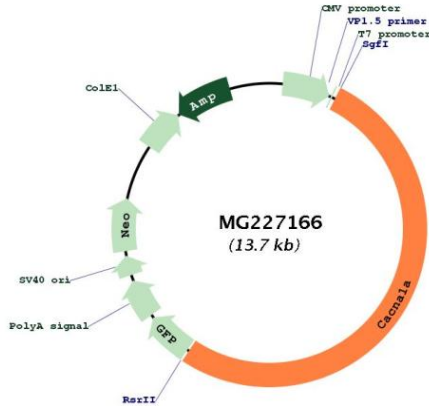
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_007578.3, NP_031604.3](#)
RefSeq Size: 7929 bp
RefSeq ORF: 7107 bp
Locus ID: 12286
UniProt ID: [P97445](#)
Cytogenetics: 8 40.95 cM

Gene Summary: Voltage-sensitive calcium channels (VSCC) mediate the entry of calcium ions into excitable cells and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division and cell death. The isoform alpha-1A gives rise to P and/or Q-type calcium currents. P/Q-type calcium channels belong to the 'high-voltage activated' (HVA) group and are specifically blocked by the spider omega-agatoxin-IVA (AC P54282) (By similarity). They are however insensitive to dihydropyridines (DHP).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG227166