

## Product datasheet for MC229730

### Cacna1a (NM\_001252059) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cacna1a (NM_001252059) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Cacna1a
Synonyms:	alpha1A; APCA; BI; Caca1a; Cacn1a4; Cav2.1; Ccha1a; EA2; FHM; HPCA; Ia; MHP; MHP1; nmf352
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC229730 representing NM_001252059 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCCCGCTTTGGAGACGAGATGCCGGGCCGCTACGGCGCAGGCGGAGGAGGCTCAGGGCCGGCCGCCG  
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ATCACTATAAGGACATGTACAGTTTATTGCGAGTAATATCGCCCCCTCTCGGCTTAGGCAAGAAATGTC
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AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

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- Restriction Sites:** SgfI-RsrII
- ACCN:** NM\_001252059
- Insert Size:** 6966 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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\\_001252059.1](#), [NP\\_001238988.1](#)

**RefSeq Size:** 7788 bp

**RefSeq ORF:** 6966 bp

**Locus ID:** 12286

**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]

Transcript Variant: This variant (2) has multiple differences in the coding region but maintains the reading frame, compared to variant 1. This variant encodes isoform 2, which is shorter than isoform 1.