

## Product datasheet for **TG500242**

### Cacna1c Mouse shRNA Plasmid (Locus ID 12288)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Cacna1c Mouse shRNA Plasmid (Locus ID 12288)
Locus ID:	12288
Synonyms:	Cav1.2; Cchl1a1; D930026N18Rik; MBC; MELC-CC
Vector:	pGFP-V-RS (TR30007)
E. coli Selection:	Kanamycin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Cacna1c - Mouse, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 12288). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.
RefSeq:	<a href="#">NM_001159533</a> , <a href="#">NM_001159534</a> , <a href="#">NM_001159535</a> , <a href="#">NM_001255997</a> , <a href="#">NM_001255998</a> , <a href="#">NM_001255999</a> , <a href="#">NM_001256000</a> , <a href="#">NM_001256001</a> , <a href="#">NM_001256002</a> , <a href="#">NM_001290335</a> , <a href="#">NM_009781</a> , <a href="#">NM_009781.1</a> , <a href="#">NM_009781.2</a> , <a href="#">NM_009781.3</a> , <a href="#">NM_009781.4</a> , <a href="#">NM_001159533.1</a> , <a href="#">NM_001159533.2</a> , <a href="#">NM_001159535.1</a> , <a href="#">NM_001159535.2</a> , <a href="#">NM_001290335.1</a> , <a href="#">NM_001256000.1</a> , <a href="#">NM_001256000.2</a> , <a href="#">NM_001256001.1</a> , <a href="#">NM_001256001.2</a> , <a href="#">NM_001255997.1</a> , <a href="#">NM_001255997.2</a> , <a href="#">NM_001255999.1</a> , <a href="#">NM_001255999.2</a> , <a href="#">NM_001255998.1</a> , <a href="#">NM_001255998.2</a> , <a href="#">NM_001256002.1</a> , <a href="#">NM_001256002.2</a> , <a href="#">NM_001159534.1</a> , <a href="#">BC145104</a> , <a href="#">BC138031</a> , <a href="#">BC094579</a> , <a href="#">BC145103</a> , <a href="#">BC145105</a>
UniProt ID:	<a href="#">Q01815</a>
Summary:	Pore-forming, alpha-1C subunit of the voltage-gated calcium channel that gives rise to L-type calcium currents (PubMed:14609949, PubMed:18586882, PubMed:21216955, PubMed:25368181, PubMed:28119464). Mediates influx of calcium ions into the cytoplasm, and thereby triggers calcium release from the sarcoplasm (By similarity). Plays an important role in excitation-contraction coupling in the heart. Required for normal heart development and normal regulation of heart rhythm (PubMed:21216955). Required for normal contraction of smooth muscle cells in blood vessels and in the intestine. Essential for normal blood pressure regulation via its role in the contraction of arterial smooth muscle cells (PubMed:14609949, PubMed:28119464). Long-lasting (L-type) calcium channels belong to the 'high-voltage activated' (HVA) group (Probable).[UniProtKB/Swiss-Prot Function]



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**shRNA Design:** These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact [techsupport@origene.com](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).

**Performance Guaranteed:** OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).