

## Product datasheet for **TR314238**

### CACNA2D4 Human shRNA Plasmid Kit (Locus ID 93589)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	CACNA2D4 Human shRNA Plasmid Kit (Locus ID 93589)
Locus ID:	93589
Synonyms:	calcium channel, voltage-dependent, alpha 2/delta subunit 4; RCD4; voltage-gated calcium channel alpha(2)delta-4 subunit
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	CACNA2D4 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 93589). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001005737</a> , <a href="#">NM_001005766</a> , <a href="#">NM_172364</a> , <a href="#">NM_172364.1</a> , <a href="#">NM_172364.2</a> , <a href="#">NM_172364.3</a> , <a href="#">NM_172364.4</a> , <a href="#">NM_001005737.1</a> , <a href="#">NM_001005766.1</a> , <a href="#">BC048288</a> , <a href="#">BC150186</a>
UniProt ID:	<a href="#">Q7Z3S7</a>
Summary:	This gene encodes a member of the alpha-2/delta subunit family, a protein in the voltage-dependent calcium channel complex. Calcium channels mediate the influx of calcium ions into the cell upon membrane polarization and consist of a complex of alpha-1, alpha-2/delta, beta, and gamma subunits in a 1:1:1:1 ratio. Various versions of each of these subunits exist, either expressed from similar genes or the result of alternative splicing. Research on a highly similar protein in rabbit suggests the protein described in this record is cleaved into alpha-2 and delta subunits. Alternate transcriptional splice variants of this gene have been observed but have not been thoroughly characterized. [provided by RefSeq, Jul 2008]
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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .



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**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).