

Product datasheet for **TR314236**

CACNB4 Human shRNA Plasmid Kit (Locus ID 785)

Product data:

Product Type:	shRNA Plasmids
Product Name:	CACNB4 Human shRNA Plasmid Kit (Locus ID 785)
Locus ID:	785
Synonyms:	CAB4; CACNLB4; EA5; EIG9; EJM; EJM4; EJM6
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	CACNB4 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 785). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_000726 , NM_001005746 , NM_001005747 , NM_001145798 , NM_001320722 , NM_001330113 , NM_001330114 , NM_001330115 , NM_001330116 , NM_001330117 , NM_001330118 , NM_000726.2 , NM_000726.3 , NM_000726.4 , NM_001005746.1 , NM_001005746.2 , NM_001005746.3 , NM_001005747.1 , NM_001005747.2 , NM_001145798.1 , NM_001145798.2 , BC075049 , BC075049.2 , NM_001005747.4 , NM_000726.5 , NM_001005746.4
UniProt ID:	O00305
Summary:	This gene encodes a member of the beta subunit family of voltage-dependent calcium channel complex proteins. 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. The protein encoded by this locus plays an important role in calcium channel function by modulating G protein inhibition, increasing peak calcium current, controlling the alpha-1 subunit membrane targeting and shifting the voltage dependence of activation and inactivation. Certain mutations in this gene have been associated with idiopathic generalized epilepsy (IGE), juvenile myoclonic epilepsy (JME), and episodic ataxia, type 5. [provided by RefSeq, Aug 2016]



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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. 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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).