

Product datasheet for **TR515346**

Kcnc3 Mouse shRNA Plasmid (Locus ID 16504)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Kcnc3 Mouse shRNA Plasmid (Locus ID 16504)
Locus ID:	16504
Synonyms:	Kcr2-3; KShIIID; Kv3.3
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Kcnc3 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 16504). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_001290682 , NM_008422 , NM_008422.1 , NM_008422.2 , NM_001290682.1 , BC156432
UniProt ID:	Q63959
Summary:	Voltage-gated potassium channel that plays an important role in the rapid repolarization of fast-firing brain neurons. The channel opens in response to the voltage difference across the membrane, forming a potassium-selective channel through which potassium ions pass in accordance with their electrochemical gradient. The channel displays rapid activation and inactivation kinetics (PubMed:18539595, PubMed:26997484, PubMed:24218544). It plays a role in the regulation of the frequency, shape and duration of action potentials in Purkinje cells (PubMed:15217387, PubMed:18448641, PubMed:24218544). Required for normal survival of cerebellar neurons, probably via its role in regulating the duration and frequency of action potentials that in turn regulate the activity of voltage-gated Ca(2+) channels and cellular Ca(2+) homeostasis (PubMed:24218544). Required for normal motor function (PubMed:16923152, PubMed:18448641). Plays a role in the reorganization of the cortical actin cytoskeleton and the formation of actin veil structures in neuronal growth cones via its interaction with HAX1 and the Arp2/3 complex (PubMed:26997484).[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. 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).