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Product datasheet for TL501164

Kcnma1 Mouse shRNA Plasmid (Locus ID 16531)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Kcnma1 Mouse shRNA Plasmid (Locus ID 16531)
Locus ID:	16531
Synonyms:	5730414M22Rik; BKCa; MaxiK; mSlo; mSlo1; Slo; Slo1
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	Kcnma1 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 16531). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	NM_001253358, NM_001253359, NM_001253360, NM_001253361, NM_001253362, NM_001253363, NM_001253364, NM_001253365, NM_001253366, NM_001253367, NM_001253368, NM_001253369, NM_001253370, NM_001253371, NM_001253372, NM_001253373, NM_001253374, NM_001253375, NM_001253376, NM_001253377, NM_001253378, NM_010610, NM_010610.1, NM_010610.2, NM_010610.3, NM_001253378.1, NM_001253375.1, NM_001253376.1, NM_001253377.1, NM_001253374.1, NM_001253373.1, NM_001253370.1, NM_001253371.1, NM_001253372.1, NM_001253369.1, NM_001253368.1, NM_001253367.1, NM_001253366.1, NM_001253365.1, NM_001253364.1, NM_001253363.1, NM_001253362.1, NM_001253361.1, NM_001253360.1, NM_001253359.1, NM_001253358.1, BC065068, BC128331, BC169259, BC169260, BC169261
UniProt ID:	Q08460

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Summary:

Potassium channel activated by both membrane depolarization or increase in cytosolic Ca(2+) that mediates export of K(+). It is also activated by the concentration of cytosolic Mg(2+). Its activation dampens the excitatory events that elevate the cytosolic Ca(2+) concentration and/or depolarize the cell membrane. It therefore contributes to repolarization of the membrane potential. Plays a key role in controlling excitability in a number of systems, such as regulation of the contraction of smooth muscle, the tuning of hair cells in the cochlea, regulation of transmitter release, and innate immunity. In smooth muscles, its activation by high level of Ca(2+), caused by ryanodine receptors in the sarcoplasmic reticulum, regulates the membrane potential. In cochlea cells, its number and kinetic properties partly determine the characteristic frequency of each hair cell and thereby helps to establish a tonotopic map. Kinetics of KCNMA1 channels are determined by alternative splicing, phosphorylation status and its combination with modulating beta subunits. Highly sensitive to both iberiotoxin (IbTx) and charybdotoxin (CTX).[UniProtKB/Swiss-Prot Function]

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).