

Product datasheet for **TR501148**

Kcnab2 Mouse shRNA Plasmid (Locus ID 16498)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Kcnab2 Mouse shRNA Plasmid (Locus ID 16498)
Locus ID:	16498
Synonyms:	F5; I2rf5; Kcnb3; kv-beta-2
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Kcnab2 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 16498). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<u>BC039178</u> , <u>NM_001252654</u> , <u>NM_001252655</u> , <u>NM_001252656</u> , <u>NM_010598</u> , <u>NM_001355172</u> , <u>NM_001355173</u> , <u>NM_010598.1</u> , <u>NM_010598.2</u> , <u>NM_010598.3</u> , <u>NM_001252654.1</u> , <u>NM_001252655.1</u> , <u>NM_001252656.1</u> , <u>BC049986</u> , <u>BC055473</u> , <u>NM_001252655.2</u> , <u>NM_010598.4</u> , <u>NM_001252656.2</u> , <u>NM_001252654.2</u>
UniProt ID:	<u>P62482</u>
Summary:	Cytoplasmic potassium channel subunit that modulates the characteristics of the channel-forming alpha-subunits (PubMed:8576199). Contributes to the regulation of nerve signaling, and prevents neuronal hyperexcitability (PubMed:11825900, PubMed:21209188). Promotes expression of the pore-forming alpha subunits at the cell membrane, and thereby increases channel activity (By similarity). Promotes potassium channel closure via a mechanism that does not involve physical obstruction of the channel pore (PubMed:8576199). Modulates the functional properties of KCNA4 (By similarity). Modulates the functional properties of KCNA5 (PubMed:8576199). Enhances KCNB2 channel activity (PubMed:8824288). Modulates the functional properties of KCNA5 (PubMed:8576199). Binds NADPH and has NADPH-dependent aldoketoreductase activity (By similarity). Has broad substrate specificity and can catalyze the reduction of methylglyoxal, 9,10-phenanthrenequinone, prostaglandin J2, 4-nitrobenzaldehyde, 4-nitroacetophenone and 4-oxo-trans-2-nonenal (in vitro) (By similarity). [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).