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Product datasheet for TR505925

Dgkg Mouse shRNA Plasmid (Locus ID 110197)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Dgkg Mouse shRNA Plasmid (Locus ID 110197)
Locus ID:	110197
Synonyms:	90kDa; 2900055E17Rik; AI854428; Dagk3; E430001K23Rik; mKIAA4131
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Dgkg - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 110197). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC015278, NM_001346673, NM_138650, NM_138650.1, NM_138650.2
UniProt ID:	Q91WG7
Summary:	Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (PubMed:32033984). Thereby, acts as a central switch between the signaling pathways activated by these second messengers with different cellular targets and opposite effects in numerous biological processes (PubMed:32033984). Has no apparent specificity with regard to the acyl compositions of diacylglycerol (By similarity). Specifically expressed in the cerebellum where it controls the level of diacylglycerol which in turn regulates the activity of protein kinase C gamma (PubMed:32033984). Through protein kinase C gamma, indirectly regulates the dendritic development of Purkinje cells, cerebellar long term depression and ultimately cerebellar motor coordination (PubMed:32033984).[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.

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