

## Product datasheet for **TR514494**

### **Sgsm2 Mouse shRNA Plasmid (Locus ID 97761)**

#### **Product data:**

Product Type:	shRNA Plasmids
Product Name:	Sgsm2 Mouse shRNA Plasmid (Locus ID 97761)
Locus ID:	97761
Synonyms:	D630003G22Rik; mKIAA0397; R74628; Rutbc1
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Sgsm2 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector (Gene ID = 97761). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">BC058414</a> , <a href="#">BC060163</a> , <a href="#">NM_197943</a> , <a href="#">NM_197943.1</a> , <a href="#">NM_197943.2</a>
UniProt ID:	<a href="#">Q80U12</a>
Summary:	Possesses GTPase activator activity towards RAB32, RAB33B and RAB38. Regulates the trafficking of melanogenic enzymes TYR, TYRP1 and DCT/TYRP2 to melanosomes in melanocytes by inactivating RAB32 and RAB38. Inhibits RAB32 and RAB38 activation both directly by promoting their GTPase activity and indirectly by disrupting the RAB9A-HPS4 interaction which is required for RAB32/38 activation (PubMed:26620560).[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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .


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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](mailto: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).