

Product datasheet for **TR514806**

Rd3 Mouse shRNA Plasmid (Locus ID 74023)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Rd3 Mouse shRNA Plasmid (Locus ID 74023)
Locus ID:	74023
Synonyms:	3322402L07Rik; rd-3
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Rd3 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 74023). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC017602 , BC103778 , BC116935 , BC116937 , NM_001177900 , NM_001303132 , NM_023727 , NM_023727.1 , NM_023727.2 , NM_023727.3 , NM_023727.4 , NM_001177900.1 , NM_001177900.2 , NM_001303132.1 , BC017602.1 , BC089516
UniProt ID:	Q8BRE0
Summary:	Plays a critical role in the regulation of enzymes involved in nucleotide cycle in photoreceptors (PubMed:21078983, PubMed:27471269). Inhibits the basal catalytic activity and the GCAP-stimulated activity of GUCY2E and GUCY2F, two retinal guanylyl cyclases involved in the production of cGMP in photoreceptors (PubMed:27471269). Involved in the transport of GUCY2E and GUCY2F to their target sites in the photoreceptor outer segment (PubMed:21078983). Up-regulates the activity of GUK1, a kinase that plays also an essential role for recycling GMP and indirectly, cGMP (By similarity). Plays an important role for the survival of rods and cones in the retina (PubMed:8486383, PubMed:17186464). [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).