

## Product datasheet for **TR507210**

### **Rtn4r1 Mouse shRNA Plasmid (Locus ID 237847)**

#### **Product data:**

<b>Product Type:</b>	shRNA Plasmids
<b>Product Name:</b>	Rtn4r1 Mouse shRNA Plasmid (Locus ID 237847)
<b>Locus ID:</b>	237847
<b>Synonyms:</b>	Ngr3; Ngrh2; Ngrl2
<b>Vector:</b>	pRS (TR20003)
<b>E. coli Selection:</b>	Ampicillin
<b>Mammalian Cell Selection:</b>	Puromycin
<b>Format:</b>	Retroviral plasmids
<b>Components:</b>	Rtn4r1 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 237847). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
<b>RefSeq:</b>	<a href="#">BC030471</a> , <a href="#">NM_177708</a> , <a href="#">NM_177708.1</a> , <a href="#">NM_177708.3</a> , <a href="#">NM_177708.4</a> , <a href="#">NM_177708.5</a>
<b>UniProt ID:</b>	<a href="#">Q8K0S5</a>
<b>Summary:</b>	Cell surface receptor that plays a functionally redundant role in postnatal brain development and in regulating axon regeneration in the adult central nervous system (PubMed:22406547, PubMed:27339102). Contributes to normal axon migration across the brain midline and normal formation of the corpus callosum (PubMed:27339102). Protects motoneurons against apoptosis; protection against apoptosis is probably mediated by MAG (PubMed:26335717). Plays a role in inhibiting neurite outgrowth and axon regeneration via its binding to neuronal chondroitin sulfate proteoglycans (PubMed:22406547). Binds heparin (PubMed:22406547). Like other family members, plays a role in restricting the number dendritic spines and the number of synapses that are formed during brain development (PubMed:22325200). Signaling mediates activation of Rho and downstream reorganization of the actin cytoskeleton (PubMed:22325200).[UniProtKB/Swiss-Prot Function]
<b>shRNA Design:</b>	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> .



[View online »](#)

**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).