

Product datasheet for **TR503488**

Rtn4r Mouse shRNA Plasmid (Locus ID 65079)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Rtn4r Mouse shRNA Plasmid (Locus ID 65079)
Locus ID:	65079
Synonyms:	NgR; NgR1; NOGOR
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Rtn4r - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 65079). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC052317 , BC058381 , NM_022982 , NM_022982.1 , NM_022982.2 , NM_022982.3
UniProt ID:	Q99PI8



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Summary: Receptor for RTN4, OMG and MAG (PubMed:11201742, PubMed:12089450, PubMed:15504325, PubMed:18411262, PubMed:22923615). Functions as receptor for the sialylated gangliosides GT1b and GM1 (PubMed:18411262). Besides, functions as receptor for chondroitin sulfate proteoglycans (PubMed:22406547). Can also bind heparin (PubMed:22406547). Intracellular signaling cascades are triggered via the coreceptor NGFR (By similarity). Signaling mediates activation of Rho and downstream reorganization of the actin cytoskeleton (PubMed:22325200). Mediates axonal growth inhibition (By similarity). Mediates axonal growth inhibition and plays a role in regulating axon regeneration and neuronal plasticity in the adult central nervous system (PubMed:11201742, PubMed:12089450, PubMed:15504325, PubMed:22923615). Plays a role in postnatal brain development (PubMed:27339102). Required for 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 via interaction with MAG (PubMed:26335717). Acts in conjunction with RTN4 and LINGO1 in regulating neuronal precursor cell motility during cortical development (PubMed:20093372). 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). [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](#).

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).