

Product datasheet for **TR501471**

Ngfr Mouse shRNA Plasmid (Locus ID 18053)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Ngfr Mouse shRNA Plasmid (Locus ID 18053)
Locus ID:	18053
Synonyms:	LNGFR; p75; p75NGFR; p75NTR; Tnfrsf16
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Ngfr - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 18053). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC038365 , NM_033217 , NM_033217.1 , NM_033217.2 , NM_033217.3
UniProt ID:	Q9Z0W1



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Summary:	<p>Low affinity neurotrophin receptor which can bind to mature NGF, BDNF, NTF3, and NTF4 (PubMed:11559852, PubMed:1317267). Forms a heterodimeric receptor with SORCS2 that binds the precursor forms of NGF (proNGF), BDNF (proBDNF) and NTF3 (proNTF3) with high affinity, and has much lower affinity for mature NGF and BDNF (PubMed:22155786, PubMed:24908487, PubMed:27457814). Plays an important role in differentiation and survival of specific neuronal populations during development (PubMed:1317267, PubMed:11559852). Can mediate cell survival as well as cell death of neural cells (PubMed:1317267, PubMed:11559852, PubMed:24908487). The heterodimeric receptor formed with SORCS2 plays a role in proBDNF-dependent synaptic plasticity, in hippocampal long term depression (LTD) and long term potentiation (LTP) (PubMed:27457814). Plays a role in the inactivation of RHOA (By similarity). Plays a role in the regulation of the translocation of GLUT4 to the cell surface in adipocytes and skeletal muscle cells in response to insulin, probably by regulating RAB31 activity, and thereby contributes to the regulation of insulin-dependent glucose uptake (PubMed:22460790). Necessary for the circadian oscillation of the clock genes ARNTL/BMAL1, PER1, PER2 and NR1D1 in the suprachiasmatic nucleus (SCN) of the brain and in liver and of the genes involved in glucose and lipid metabolism in the liver (PubMed:23785138).[UniProtKB/Swiss-Prot Function]</p>
shRNA Design:	<p>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.</p>
Performance Guaranteed:	<p>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.</p> <p>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).</p>