

Product datasheet for **TR509450**

Setx Mouse shRNA Plasmid (Locus ID 269254)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Setx Mouse shRNA Plasmid (Locus ID 269254)
Locus ID:	269254
Synonyms:	A130090N03; A930037J23Rik; Als4; AOA2; AW060766; mKIAA0625; SCAR1; Sen1
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Setx - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 269254). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_198033 , NM_198033.1 , NM_198033.2 , BC046382 , BC058109 , BC079604 , BC156403
UniProt ID:	A2AKX3



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Summary: Probable RNA/DNA helicase involved in diverse aspects of RNA metabolism and genomic integrity. Plays a role in transcription regulation by its ability to modulate RNA Polymerase II (Pol II) binding to chromatin and through its interaction with proteins involved in transcription. Contributes to the mRNA splicing efficiency and splice site selection. Required for the resolution of R-loop RNA-DNA hybrid formation at G-rich pause sites located downstream of the poly(A) site, allowing XRN2 recruitment and XRN2-mediated degradation of the downstream cleaved RNA and hence efficient RNA polymerase II (RNAP II) transcription termination (By similarity). Required for the 3' transcriptional termination of PER1 and CRY2, thus playing an important role in the circadian rhythm regulation (PubMed:22767893). Involved in DNA double-strand breaks damage response generated by oxidative stress. In association with RRP45, targets the RNA exosome complex to sites of transcription-induced DNA damage (By similarity). Plays a role in the development and maturation of germ cells: essential for male meiosis, acting at the interface of transcription and meiotic recombination, and in the process of gene silencing during meiotic sex chromosome inactivation (MSCI) (PubMed:23593030). Plays a role in neurite outgrowth in hippocampal cells through FGF8-activated signaling pathways. Inhibits retinoic acid-induced apoptosis. May be involved in telomeric stability through the regulation of telomere repeat-containing RNA (TERRA) transcription (By similarity).[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).