

## **Product datasheet for TL501912**

## Rnps1 Mouse shRNA Plasmid (Locus ID 19826)

## **Product data:**

**Product Type:** shRNA Plasmids

**Product Name:** Rnps1 Mouse shRNA Plasmid (Locus ID 19826)

**Locus ID:** 19826

**Vector:** pGFP-C-shLenti (TR30023)

E. coli Selection: Chloramphenicol (34 ug/ml)

Mammalian Cell Puromycin

Selection:

Format: Lentiviral plasmids

**Components:** Rnps1 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 19826).

5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.

RefSeq: BC002061, NM 001080127, NM 001080128, NM 009070, NM 001357626, NM 009070.1,

NM 009070.2, NM 001080128.1, NM 001080127.1, BC008089

UniProt ID: Q99M28

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Summary:

Part of pre- and post-splicing multiprotein mRNP complexes. Auxiliary component of the splicing-dependent multiprotein exon junction complex (EJC) deposited at splice junction on mRNAs. The EJC is a dynamic structure consisting of core proteins and several peripheral nuclear and cytoplasmic associated factors that join the complex only transiently either during EJC assembly or during subsequent mRNA metabolism. Component of the ASAP and PSAP complexes which bind RNA in a sequence-independent manner and are proposed to be recruited to the EJC prior to or during the splicing process and to regulate specific excision of introns in specific transcription subsets. The ASAP complex can inhibit RNA processing during in vitro splicing reactions. The ASAP complex promotes apoptosis and is disassembled after induction of apoptosis. Enhances the formation of the ATP-dependent A complex of the spliceosome. Involved in both constitutive splicing and, in association with SRP54 and TRA2B/SFRS10, in distinctive modulation of alternative splicing in a substrate-dependent manner. Involved in the splicing modulation of BCL2L1/Bcl-X (and probably other apoptotic genes); specifically inhibits formation of proapoptotic isoforms such as Bcl-X(S); the activity is different from the established EJC assembly and function. Participates in mRNA 3'-end cleavage. Involved in UPF2-dependent nonsense-mediated decay (NMD) of mRNAs containing premature stop codons. Also mediates increase of mRNA abundance and translational efficiency. Binds spliced mRNA 20-25 nt upstream of exon-exon junctions (By similarity). [UniProtKB/Swiss-Prot Function]

shRNA Design:

Performance Guaranteed: 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="mailto:custom shRNA service">custom shRNA service</a>.

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).