

Product datasheet for **TL519587**

Pum2 Mouse shRNA Plasmid (Locus ID 80913)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Pum2 Mouse shRNA Plasmid (Locus ID 80913)
Locus ID:	80913
Synonyms:	5730503J23Rik; Pumm2
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	Pum2 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 80913). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<u>BC041773</u> , <u>NM_001160219</u> , <u>NM_001160220</u> , <u>NM_001160221</u> , <u>NM_001160222</u> , <u>NM_001310519</u> , <u>NM_030723</u> , <u>NR_027670</u> , <u>NM_001160222.1</u> , <u>NM_030723.1</u> , <u>NM_030723.2</u> , <u>NM_001160219.1</u> , <u>NM_001160220.1</u> , <u>NM_001160221.1</u> , <u>BC013765</u>
UniProt ID:	<u>Q80U58</u>



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Summary:	<p>Sequence-specific RNA-binding protein that acts as a post-transcriptional repressor by binding the 3' UTR of mRNA targets. Binds to an RNA consensus sequence, the Pumilio Response Element (PRE), 5'-UGUANAUA-3', that is related to the Nanos Response Element (NRE). Mediates post-transcriptional repression of transcripts via different mechanisms: acts via direct recruitment of the CCR4-POP2-NOT deadenylase leading to translational inhibition and mRNA degradation. Also mediates deadenylation-independent repression by promoting accessibility of miRNAs. Acts as a post-transcriptional repressor of E2F3 mRNAs by binding to its 3' UTR and facilitating miRNA regulation. Plays a role in cytoplasmic sensing of viral infection. Represses a program of genes necessary to maintain genomic stability such as key mitotic, DNA repair and DNA replication factors. Its ability to repress those target mRNAs is regulated by the lncRNA NORAD (non-coding RNA activated by DNA damage) which, due to its high abundance and multitude of PUMILIO binding sites, is able to sequester a significant fraction of PUM1 and PUM2 in the cytoplasm. May regulate DCUN1D3 mRNA levels. May support proliferation and self-renewal of stem cells. Binds specifically to miRNA MIR199A precursor, with PUM1, regulates miRNA MIR199A expression at a posttranscriptional level (By similarity).[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>