

Product datasheet for **TR502939**

Usp2 Mouse shRNA Plasmid (Locus ID 53376)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Usp2 Mouse shRNA Plasmid (Locus ID 53376)
Locus ID:	53376
Synonyms:	B930035K21Rik; Ubp41
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Usp2 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 53376). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC017517 , NM_016808 , NM_198091 , NM_198092 , NM_016808.1 , NM_016808.2 , NM_198091.1 , NM_198091.2 , NM_198092.1 , NM_198092.2
UniProt ID:	O88623
Summary:	Hydrolase that deubiquitinates polyubiquitinated target proteins such as MDM2, MDM4 and CCND1 (By similarity). Isoform 1 and isoform 2 possess both ubiquitin-specific peptidase and isopeptidase activities (By similarity). Deubiquitinates MDM2 without reversing MDM2-mediated p53/TP53 ubiquitination and thus indirectly promotes p53/TP53 degradation and limits p53 activity (By similarity). Has no deubiquitinase activity against p53/TP53 (By similarity). Prevents MDM2-mediated degradation of MDM4 (By similarity). Plays a role in the G1/S cell-cycle progression in normal and cancer cells (By similarity). Plays a role in the regulation of myogenic differentiation of embryonic muscle cells (By similarity). Regulates the circadian clock by modulating its intrinsic circadian rhythm and its capacity to respond to external cues (PubMed:23213472, PubMed:25238854, PubMed:26756164). Associates with clock proteins and deubiquitinates core clock component PER1 but does not affect its overall stability (PubMed:23213472). Regulates the nucleocytoplasmic shuttling and nuclear retention of PER1 and its repressive role on the clock transcription factors CLOCK and ARNTL/BMAL1 (PubMed:25238854).[UniProtKB/Swiss-Prot Function]



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- 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).