

## Product datasheet for **TR307249**

### **MRI (C7orf49) Human shRNA Plasmid Kit (Locus ID 78996)**

#### **Product data:**

<b>Product Type:</b>	shRNA Plasmids
<b>Product Name:</b>	MRI (C7orf49) Human shRNA Plasmid Kit (Locus ID 78996)
<b>Locus ID:</b>	78996
<b>Synonyms:</b>	C7orf49; MRI; MRI-2
<b>Vector:</b>	pRS (TR20003)
<b>E. coli Selection:</b>	Ampicillin
<b>Mammalian Cell Selection:</b>	Puromycin
<b>Format:</b>	Retroviral plasmids
<b>Components:</b>	C7orf49 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 78996). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
<b>RefSeq:</b>	<a href="#">NM_001243749</a> , <a href="#">NM_001243751</a> , <a href="#">NM_001243752</a> , <a href="#">NM_001243753</a> , <a href="#">NM_001243754</a> , <a href="#">NM_001243755</a> , <a href="#">NM_001305629</a> , <a href="#">NM_001305630</a> , <a href="#">NM_024033</a> , <a href="#">NR_024185</a> , <a href="#">NR_024186</a> , <a href="#">NM_024033.1</a> , <a href="#">NM_024033.3</a> , <a href="#">NM_001243754.1</a> , <a href="#">NM_001243755.1</a> , <a href="#">NM_001243749.1</a> , <a href="#">NM_001243751.1</a> , <a href="#">NM_001243752.1</a> , <a href="#">NM_001243753.1</a> , <a href="#">BC000168</a> , <a href="#">BC000168.2</a> , <a href="#">BC010361</a> , <a href="#">BC024018</a> , <a href="#">BC050676</a> , <a href="#">BC067350</a> , <a href="#">BM727569</a> , <a href="#">NM_001363329</a> , <a href="#">NM_001363330</a>
<b>UniProt ID:</b>	<a href="#">Q9BWK5</a>
<b>Summary:</b>	Isoform 1: Cell-cycle-specific inhibitor of classical non-homologous end joining (NHEJ) of DNA double-strand break (DSB) repair during the S and G2 phases (PubMed:28959974). Acts as a regulator of DNA repair pathway choice by specifically inhibiting classical NHEJ during the S and G2 phases, thereby promoting error-free repair by homologous recombination during cell cycle phases when sister chromatids are present (PubMed:28959974). Preferentially protects single-stranded overhangs at break sites by inhibiting classical NHEJ, thereby creating a local environment that favors homologous recombination (PubMed:28959974). Acts via interaction with XRCC5/Ku80 and XRCC6/Ku70, interaction restricted during the S and G2 phases only (PubMed:28959974). Molecular mechanisms governing classical NHEJ inhibition via interaction with XRCC5/Ku80 and XRCC6/Ku70 are unknown (PubMed:28959974). May act as a regulator of proteasome (By similarity).[UniProtKB/Swiss-Prot Function]


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<b>shRNA Design:</b>	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="#">custom shRNA service</a> .
<b>Performance Guaranteed:</b>	<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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. 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>