

## Product datasheet for **TR512550**

### **Ddit4 Mouse shRNA Plasmid (Locus ID 74747)**

#### **Product data:**

<b>Product Type:</b>	shRNA Plasmids
<b>Product Name:</b>	Ddit4 Mouse shRNA Plasmid (Locus ID 74747)
<b>Locus ID:</b>	74747
<b>Synonyms:</b>	5830413E08Rik; AA415483; dig2; REDD1; Rtp801
<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>	Ddit4 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 74747). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
<b>RefSeq:</b>	<a href="#">BC131992</a> , <a href="#">BC132645</a> , <a href="#">NM_029083</a> , <a href="#">NM_029083.2</a> , <a href="#">BC145370</a>
<b>UniProt ID:</b>	<a href="#">Q9D3F7</a>
<b>Summary:</b>	Regulates cell growth, proliferation and survival via inhibition of the activity of the mammalian target of rapamycin complex 1 (mTORC1). Inhibition of mTORC1 is mediated by a pathway that involves DDIT4/REDD1, AKT1, the TSC1-TSC2 complex and the GTPase RHEB. Plays an important role in responses to cellular energy levels and cellular stress, including responses to hypoxia and DNA damage. Regulates p53/TP53-mediated apoptosis in response to DNA damage via its effect on mTORC1 activity. Its role in the response to hypoxia depends on the cell type; it mediates mTORC1 inhibition in fibroblasts and thymocytes, but not in hepatocytes. Inhibits neuronal differentiation and neurite outgrowth mediated by NGF via its effect on mTORC1 activity. Required for normal neuron migration during embryonic brain development. Plays a role in neuronal cell death. Required for mTORC1-mediated defense against viral protein synthesis and virus replication.[UniProtKB/Swiss-Prot Function]
<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> .



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**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](mailto: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).