

## Product datasheet for **TL302131**

### **RAD50 Human shRNA Plasmid Kit (Locus ID 10111)**

#### **Product data:**

Product Type:	shRNA Plasmids
Product Name:	RAD50 Human shRNA Plasmid Kit (Locus ID 10111)
Locus ID:	10111
Synonyms:	hRad50; NBSLD; RAD502
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	RAD50 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 10111). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">NM_005732</a> , <a href="#">NM_133482</a> , <a href="#">NM_005732.1</a> , <a href="#">NM_005732.2</a> , <a href="#">NM_005732.3</a> , <a href="#">NM_133482.1</a> , <a href="#">BC062603</a> , <a href="#">BC073850</a> , <a href="#">BC108282</a> , <a href="#">BC136436</a> , <a href="#">BC140005</a> , <a href="#">NM_005732.4</a>
UniProt ID:	<a href="#">Q92878</a>
Summary:	The protein encoded by this gene is highly similar to <i>Saccharomyces cerevisiae</i> Rad50, a protein involved in DNA double-strand break repair. This protein forms a complex with MRE11 and NBS1. The protein complex binds to DNA and displays numerous enzymatic activities that are required for nonhomologous joining of DNA ends. This protein, cooperating with its partners, is important for DNA double-strand break repair, cell cycle checkpoint activation, telomere maintenance, and meiotic recombination. Knockout studies of the mouse homolog suggest this gene is essential for cell growth and viability. Mutations in this gene are the cause of Nijmegen breakage syndrome-like disorder.[provided by RefSeq, Apr 2010]
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 <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).