

## Product datasheet for **TR501263**

### Lrp5 Mouse shRNA Plasmid (Locus ID 16973)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Lrp5 Mouse shRNA Plasmid (Locus ID 16973)
Locus ID:	16973
Synonyms:	BMND1; HBM; LR3; LRP7; mKIAA4142; OPPG
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Lrp5 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 16973). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">BC011374</a> , <a href="#">NM_008513</a> , <a href="#">NM_008513.1</a> , <a href="#">NM_008513.2</a> , <a href="#">NM_008513.3</a> , <a href="#">BC094610</a>
UniProt ID:	<a href="#">Q91VN0</a>
Summary:	Acts as a coreceptor with members of the frizzled family of seven-transmembrane spanning receptors to transduce signal by Wnt proteins. Activates the canonical Wnt signaling pathway that controls cell fate determination and self-renewal during embryonic development and adult tissue regeneration (PubMed:11956231). In particular, may play an important role in the development of the posterior patterning of the epiblast during gastrulation (PubMed:15142971). During bone development, regulates osteoblast proliferation and differentiation thus determining bone mass (PubMed:11956231). Mechanistically, the formation of the signaling complex between Wnt ligand, frizzled receptor and LRP5 coreceptor promotes the recruitment of AXIN1 to LRP5, stabilizing beta-catenin/CTNNB1 and activating TCF/LEF-mediated transcriptional programs (By similarity). Acts as a coreceptor for non-Wnt proteins, such as norrin/NDP. Binding of norrin/NDP to frizzled 4/FZD4-LRP5 receptor complex triggers beta-catenin/CTNNB1-dependent signaling known to be required for retinal vascular development (By similarity). Plays a role in controlling postnatal vascular regression in retina via macrophage-induced endothelial cell apoptosis (PubMed:11956231). [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](mailto: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](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).