

## Product datasheet for **TR319473**

### Insulin (INS) Human shRNA Plasmid Kit (Locus ID 3630)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Insulin (INS) Human shRNA Plasmid Kit (Locus ID 3630)
Locus ID:	3630
Synonyms:	IDDM; IDDM1; IDDM2; ILPR; IRDN; MODY10; PNDM4
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	INS - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 3630). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">BC005255</a> , <a href="#">NM_000207</a> , <a href="#">NM_001185097</a> , <a href="#">NM_001185098</a> , <a href="#">NM_001291897</a> , <a href="#">NM_000207.1</a> , <a href="#">NM_000207.2</a> , <a href="#">NM_001185097.1</a> , <a href="#">NM_001185098.1</a> , <a href="#">NM_001291897.1</a> , <a href="#">BC005255.1</a> , <a href="#">BM510347</a> , <a href="#">BM510748</a> , <a href="#">NM_000207.3</a> , <a href="#">NM_001185097.2</a> , <a href="#">NM_001291897.2</a> , <a href="#">NM_001185098.2</a>
UniProt ID:	<a href="#">P01308</a>
Summary:	This gene encodes insulin, a peptide hormone that plays a vital role in the regulation of carbohydrate and lipid metabolism. After removal of the precursor signal peptide, proinsulin is post-translationally cleaved into three peptides: the B chain and A chain peptides, which are covalently linked via two disulfide bonds to form insulin, and C-peptide. Binding of insulin to the insulin receptor (INSR) stimulates glucose uptake. A multitude of mutant alleles with phenotypic effects have been identified, including insulin-dependent diabetes mellitus, permanent neonatal diabetes mellitus, maturity-onset diabetes of the young type 10 and hyperproinsulinemia. There is a read-through gene, INS-IGF2, which overlaps with this gene at the 5' region and with the IGF2 gene at the 3' region. [provided by RefSeq, May 2020]
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).