

## Product datasheet for **TR507378**

### Cldn19 Mouse shRNA Plasmid (Locus ID 242653)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Cldn19 Mouse shRNA Plasmid (Locus ID 242653)
Locus ID:	242653
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Cldn19 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 242653). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">BC114989</a> , <a href="#">BC115827</a> , <a href="#">NM_001038590</a> , <a href="#">NM_153105</a> , <a href="#">NM_153105.1</a> , <a href="#">NM_153105.2</a> , <a href="#">NM_153105.3</a> , <a href="#">NM_153105.4</a> , <a href="#">NM_153105.5</a> , <a href="#">NM_153105.6</a> , <a href="#">NM_153105.7</a> , <a href="#">NM_001038590.1</a>
UniProt ID:	<a href="#">Q9ET38</a>
Summary:	This gene encodes a member of the claudin family. Claudins are integral membrane proteins and components of tight junction strands. Tight junction strands serve as a physical barrier to prevent solutes and water from passing freely through the paracellular space between epithelial or endothelial cell sheets, and also play critical roles in maintaining cell polarity and signal transductions. siRNA knockdown of this gene in mice develops the FHHNC (familial hypomagnesemia with hypercalciuria and nephrocalcinosis) symptoms of chronic renal wasting of magnesium and calcium together with defective renal salt handling. The protein encoded by this gene interacts with another family member, Claudin 16, and their interaction is required for their assembly into tight junctions and for renal reabsorption of magnesium. This protein is a constituent of tight junctions in the Schwann cells of peripheral myelinated nerves and the gene deficiency affects the nerve conduction of peripheral myelinated fibers. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 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).