

Product datasheet for **TR517495**

Sctr Mouse shRNA Plasmid (Locus ID 319229)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Sctr Mouse shRNA Plasmid (Locus ID 319229)
Locus ID:	319229
Synonyms:	6530402O03Rik
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Sctr - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 319229). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC089355 , NM_001012322 , NM_001311077 , NM_001012322.1 , NM_001012322.2
UniProt ID:	Q5FWI2
Summary:	Receptor for secretin (SCT), which is involved in different processes such as regulation of the pH of the duodenal content, food intake and water homeostasis (PubMed:20927047, PubMed:24273196, PubMed:30449620). The activity of this receptor is mediated by G proteins which activate adenylyl cyclase (PubMed:30449620). Upon binding to secretin, regulates the pH of the duodenum by (1) inhibiting the secretion of gastric acid from the parietal cells of the stomach and (2) stimulating the production of bicarbonate (NaHCO ₃) from the ductal cells of the pancreas (By similarity). In addition to regulating the pH of the duodenal content, plays a central role in diet induced thermogenesis: acts as a non-sympathetic brown fat (BAT) activator mediating prandial thermogenesis, which consequentially induces satiation (PubMed:30449620). Mechanistically, secretin released by the gut after a meal binds to secretin receptor (SCTR) in brown adipocytes, activating brown fat thermogenesis by stimulating lipolysis, which is sensed in the brain and promotes satiation (PubMed:30449620). Also able to stimulate lipolysis in white adipocytes (PubMed:24273196). Also plays an important role in cellular osmoregulation by regulating renal water reabsorption (PubMed:17283064). Also plays a role in the central nervous system: required for synaptic plasticity (PubMed:17008357).[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. 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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).