

Product datasheet for **TR511708**

Adcy8 Mouse shRNA Plasmid (Locus ID 11514)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Adcy8 Mouse shRNA Plasmid (Locus ID 11514)
Locus ID:	11514
Synonyms:	AC8; AW060868
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Adcy8 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 11514). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_001291903 , NM_001331075 , NM_009623 , NM_009623.1 , NM_009623.2 , NM_001291903.1 , BC059010 , BC094231 , BC156810
UniProt ID:	P97490
Summary:	Catalyzes the formation of cAMP in response to calcium entry leading to cAMP signaling activation that affect processes such as synaptic plasticity and insulin secretion (PubMed:10864938, PubMed:25403481, PubMed:10482244, PubMed:14585998, PubMed:18448650). Plays a role in many brain functions, such as learning, memory, drug addiction, and anxiety modulation through regulation of synaptic plasticity by modulating long-term memory and long-term potentiation (LTP) through CREB transcription factor activity modulation (PubMed:10482244, PubMed:14585998, PubMed:18448650, PubMed:10864938, PubMed:12441059, PubMed:20638449, PubMed:27234425, PubMed:18222416). Plays a central role in insulin secretion by controlling glucose homeostasis through glucagon-like peptide 1 and glucose signaling pathway and maintains insulin secretion through calcium-dependent PKA activation leading to vesicle pool replenishment (PubMed:25403481). Also, allows PTGER3 to induce potentiation of PTGER4-mediated PLA2 secretion by switching from a negative to a positive regulation, during the IL1B induced-dedifferentiation of smooth muscle cells (By similarity).[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).