

## Product datasheet for **TR500042**

### Adcy7 Mouse shRNA Plasmid (Locus ID 11513)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Adcy7 Mouse shRNA Plasmid (Locus ID 11513)
Locus ID:	11513
Synonyms:	AA407758
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Adcy7 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 11513). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">BC115833</a> , <a href="#">NM_001037723</a> , <a href="#">NM_001037724</a> , <a href="#">NM_001109756</a> , <a href="#">NM_007406</a> , <a href="#">NM_007406.1</a> , <a href="#">NM_007406.2</a> , <a href="#">NM_001109756.1</a> , <a href="#">NM_001037723.1</a> , <a href="#">NM_001037723.2</a> , <a href="#">NM_001037723.3</a> , <a href="#">NM_001037724.1</a> , <a href="#">NM_001037724.2</a> , <a href="#">NM_001037724.3</a> , <a href="#">NM_001037724.4</a> , <a href="#">BC057682</a>
UniProt ID:	<a href="#">P51829</a>
Summary:	Catalyzes the formation of cAMP in response to activation of G protein-coupled receptors (Probable). Functions in signaling cascades activated namely by thrombin and sphingosine 1-phosphate and mediates regulation of cAMP synthesis through synergistic action of the stimulatory G alpha protein with GNA13 (PubMed:18541530). Also, during inflammation, mediates zymosan-induced increase intracellular cAMP, leading to protein kinase A pathway activation in order to modulate innate immune responses through heterotrimeric G proteins G(12/13) (PubMed:23178822). Functions in signaling cascades activated namely by dopamine and C5 alpha chain and mediates regulation of cAMP synthesis through synergistic action of the stimulatory G protein with G beta:gamma complex (By similarity). Functions, through cAMP response regulation, to keep inflammation under control during bacterial infection by sensing the presence of serum factors, such as the bioactive lysophospholipid (LPA) that regulate LPS-induced TNF-alpha production. However, it is also required for the optimal functions of B and T cells during adaptive immune responses by regulating cAMP synthesis in both B and T cells (PubMed:20505140).[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).