

## Product datasheet for **TG314977**

### alpha smooth muscle Actin (ACTA2) Human shRNA Plasmid Kit (Locus ID 59)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	alpha smooth muscle Actin (ACTA2) Human shRNA Plasmid Kit (Locus ID 59)
Locus ID:	59
Synonyms:	ACTSA
Vector:	pGFP-V-RS (TR30007)
E. coli Selection:	Kanamycin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	ACTA2 - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 59). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.
RefSeq:	<a href="#">NM_001141945</a> , <a href="#">NM_001320855</a> , <a href="#">NM_001613</a> , <a href="#">NM_001613.1</a> , <a href="#">NM_001613.2</a> , <a href="#">NM_001141945.1</a> , <a href="#">NM_001141945.2</a> , <a href="#">BC093052</a> , <a href="#">BC093052.1</a> , <a href="#">BC017554</a> , <a href="#">NM_001613.4</a>
UniProt ID:	<a href="#">P62736</a>
Summary:	This gene encodes one of six different actin proteins. Actins are highly conserved proteins that are involved in cell motility, structure, integrity, and intercellular signaling. The encoded protein is a smooth muscle actin that is involved in vascular contractility and blood pressure homeostasis. Mutations in this gene cause a variety of vascular diseases, such as thoracic aortic disease, coronary artery disease, stroke, and Moyamoya disease, as well as multisystemic smooth muscle dysfunction syndrome. [provided by RefSeq, Sep 2017]
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).