

## Product datasheet for **TR314970**

### alpha Actinin (ACTN1) Human shRNA Plasmid Kit (Locus ID 87)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	alpha Actinin (ACTN1) Human shRNA Plasmid Kit (Locus ID 87)
Locus ID:	87
Synonyms:	BDPLT15
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	ACTN1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 87). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001102</a> , <a href="#">NM_001130004</a> , <a href="#">NM_001130005</a> , <a href="#">NM_001102.1</a> , <a href="#">NM_001102.2</a> , <a href="#">NM_001102.3</a> , <a href="#">NM_001130005.1</a> , <a href="#">NM_001130004.1</a> , <a href="#">BC015766</a> , <a href="#">BC015766.1</a> , <a href="#">BC003576</a> , <a href="#">BC004984</a> , <a href="#">BC011987</a> , <a href="#">BC127124</a> , <a href="#">NM_001102.4</a> , <a href="#">NM_001130005.2</a> , <a href="#">NM_001130004.2</a>
UniProt ID:	<a href="#">P12814</a>
Summary:	Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal isoform is found along microfilament bundles and adherens-type junctions, where it is involved in binding actin to the membrane. In contrast, skeletal, cardiac, and smooth muscle isoforms are localized to the Z-disc and analogous dense bodies, where they help anchor the myofibrillar actin filaments. This gene encodes a nonmuscle, cytoskeletal, alpha actinin isoform and maps to the same site as the structurally similar erythroid beta spectrin gene. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]
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).