

## Product datasheet for **TG314974**

### gamma Actin (ACTG1) Human shRNA Plasmid Kit (Locus ID 71)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	gamma Actin (ACTG1) Human shRNA Plasmid Kit (Locus ID 71)
Locus ID:	71
Synonyms:	ACT; ACTG; DFNA20; DFNA26; HEL-176
Vector:	pGFP-V-RS (TR30007)
E. coli Selection:	Kanamycin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	ACTG1 - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 71). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.
RefSeq:	<a href="#">NM_001199954</a> , <a href="#">NM_001614</a> , <a href="#">NR_037688</a> , <a href="#">NM_001614.1</a> , <a href="#">NM_001614.2</a> , <a href="#">NM_001614.3</a> , <a href="#">NM_001199954.1</a> , <a href="#">BC000292</a> , <a href="#">BC000292.2</a> , <a href="#">BC001920</a> , <a href="#">BC004223</a> , <a href="#">BC007442</a> , <a href="#">BC009544</a> , <a href="#">BC009848</a> , <a href="#">BC010417</a> , <a href="#">BC010999</a> , <a href="#">BC012050</a> , <a href="#">BC015005</a> , <a href="#">BC015695</a> , <a href="#">BC015779</a> , <a href="#">BC017450</a> , <a href="#">BC018774</a> , <a href="#">BC018861</a> , <a href="#">BC023548</a> , <a href="#">BC039144</a> , <a href="#">BC053572</a> , <a href="#">BC063495</a> , <a href="#">NM_001199954.2</a> , <a href="#">NM_001614.5</a>
UniProt ID:	<a href="#">P63261</a>
Summary:	Actins are highly conserved proteins that are involved in various types of cell motility and in maintenance of the cytoskeleton. Three main groups of actin isoforms have been identified in vertebrate animals: alpha, beta, and gamma. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actins co-exist in most cell types as components of the cytoskeleton and as mediators of internal cell motility. Actin gamma 1, encoded by this gene, is a cytoplasmic actin found in all cell types. Mutations in this gene are associated with DFNA20/26, a subtype of autosomal dominant non-syndromic sensorineural progressive hearing loss and also with Baraitser-Winter syndrome. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2017]



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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).