

## Product datasheet for **TL300746**

### Titin (TTN) Human shRNA Plasmid Kit (Locus ID 7273)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Titin (TTN) Human shRNA Plasmid Kit (Locus ID 7273)
Locus ID:	7273
Synonyms:	CMD1G; CMH9; CMPD4; EOMFC; HMERF; LGMD2J; LGMDR10; MYLK5; SALMY; TMD
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	TTN - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 7273). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<u><a href="#">NM_001256850</a></u> , <u><a href="#">NM_001267550</a></u> , <u><a href="#">NM_003319</a></u> , <u><a href="#">NM_133378</a></u> , <u><a href="#">NM_133379</a></u> , <u><a href="#">NM_133432</a></u> , <u><a href="#">NM_133437</a></u> , <u><a href="#">NM_133379.1</a></u> , <u><a href="#">NM_133379.2</a></u> , <u><a href="#">NM_133379.3</a></u> , <u><a href="#">NM_133379.4</a></u> , <u><a href="#">NM_003319.4</a></u> , <u><a href="#">NM_133378.4</a></u> , <u><a href="#">NM_133432.3</a></u> , <u><a href="#">NM_133437.3</a></u> , <u><a href="#">BC013396</a></u> , <u><a href="#">BC017983</a></u> , <u><a href="#">BC026297</a></u> , <u><a href="#">BC029400</a></u> , <u><a href="#">BC030823</a></u> , <u><a href="#">BC058824</a></u> , <u><a href="#">BC070170</a></u> , <u><a href="#">BC107797</a></u>



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<b>Summary:</b>	<p>This gene encodes a large abundant protein of striated muscle. The product of this gene is divided into two regions, a N-terminal I-band and a C-terminal A-band. The I-band, which is the elastic part of the molecule, contains two regions of tandem immunoglobulin domains on either side of a PEVK region that is rich in proline, glutamate, valine and lysine. The A-band, which is thought to act as a protein-ruler, contains a mixture of immunoglobulin and fibronectin repeats, and possesses kinase activity. An N-terminal Z-disc region and a C-terminal M-line region bind to the Z-line and M-line of the sarcomere, respectively, so that a single titin molecule spans half the length of a sarcomere. Titin also contains binding sites for muscle associated proteins so it serves as an adhesion template for the assembly of contractile machinery in muscle cells. It has also been identified as a structural protein for chromosomes. Alternative splicing of this gene results in multiple transcript variants. Considerable variability exists in the I-band, the M-line and the Z-disc regions of titin. Variability in the I-band region contributes to the differences in elasticity of different titin isoforms and, therefore, to the differences in elasticity of different muscle types. Mutations in this gene are associated with familial hypertrophic cardiomyopathy 9, and autoantibodies to titin are produced in patients with the autoimmune disease scleroderma. [provided by RefSeq, Feb 2012]</p>
<b>shRNA Design:</b>	<p>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>.</p>
<b>Performance Guaranteed:</b>	<p>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.</p> <p>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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).</p>