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Product datasheet for TL316761

TNNT3 Human shRNA Plasmid Kit (Locus ID 7140)

Product data:

Product Type:	shRNA Plasmids
Product Name:	TNNT3 Human shRNA Plasmid Kit (Locus ID 7140)
Locus ID:	7140
Synonyms:	beta-TnTF; DA2B2; TNTF
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	TNNT3 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 7140). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	NM_001042780, NM_001042781, NM_001042782, NM_001297646, NM_006757, NM_001042780.1, NM_001042780.2, NM_006757.1, NM_006757.2, NM_006757.3, NM_001042781.1, NM_001042781.2, NM_001042782.1, NM_001042782.2, NM_001297646.1, BC117327, BC022275, BC050446, BC062430, BC143537, BC171727, BC171728, NM_001367842, NM_001367843, NM_001367844, NM_001367846, NM_001363561, NM_001367845, NM_001367847, NM_001367848, NM_001367849, NM_001367850, NM_001367851, NM_001367852, NM_006757.4, NM_001042780.3, NM_001042781.3, NM_001297646.2, NM_001042782.3
UniProt ID:	P45378

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Summary:

The binding of Ca(2+) to the trimeric troponin complex initiates the process of muscle contraction. Increased Ca(2+) concentrations produce a conformational change in the troponin complex that is transmitted to tropomyosin dimers situated along actin filaments. The altered conformation permits increased interaction between a myosin head and an actin filament which, ultimately, produces a muscle contraction. The troponin complex has protein subunits C, I, and T. Subunit C binds Ca(2+) and subunit I binds to actin and inhibits actin-myosin interaction. Subunit T binds the troponin complex to the tropomyosin complex and is also required for Ca(2+)-mediated activation of actomyosin ATPase activity. There are 3 different troponin T genes that encode tissue-specific isoforms of subunit T for fast skeletal-, slow skeletal-, and cardiac-muscle. This gene encodes fast skeletal troponin T protein; also known as troponin T type 3. Alternative splicing results in multiple transcript variants encoding additional distinct troponin T type 3 isoforms. A developmentally regulated switch between fetal/neonatal and adult troponin T type 3 isoforms occurs. Additional splice variants have been described but their biological validity has not been established. Mutations in this gene may cause distal arthrogryposis multiplex congenita type 2B (DA2B). [provided by RefSeq, Oct 2009]

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. 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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).