

Product datasheet for RC203127

TNNI1 (NM_003281) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TNNI1 (NM_003281) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TNNI1
Synonyms:	SSTNI; TNN1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203127 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGGAAGTCGAGAGAAAACCCAAGATCACTGCCTCCCGCAAACCTTGTCTGAAGAGCCTGATGCTGG
CCAAGGCCAAGGAATGCTGGGAGCAGGAGCACGAGGAGCGGAGGCTGAGAAGGTGCGCTACCTGGCAGA
GCGCATCCCCACGCTGCAGACCCGTGGCCTGTCCCTCAGTGCCCTGCAGGACCTGTGCCGGGAGCTGCAC
GCCAAGGTGGAGGTGGTGGATGAGGAGCGATACGACATTGAGGCCAAATGCCTCCACAACACCAGGGAGA
TTAAGGACCTGAAGCTGAAGGTGATGGACCTCCGTGGGAAGTTCAAGCGCCCGCCCTGCGTCGAGTCCG
TGTCTCGGCTGACGCCATGCTCCGGGCCCTGCTGGGCTCCAAGCACAAGGTGTCCATGGATCTGCGGGCC
AACCTCAAGTCTGTGAAGAAGGAAGACACAGAGAAGGAGCGGCCCTGTGGAGGTGGGTGACTGGAGGAAGA
ACGTGGAGGCCATGTCTGGCATGGAAGCCGGAAGAAGATGTTTGATGCCGCAAGTCTCCGACCTCACA
A

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC203127 protein sequence Red=Cloning site Green=Tags(s)
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MPEVERKPKITASRLLLLKSLMLAKAKECWEQEHEEREAEKVRYLAERIPTLQTRGLSLSALQDLCRELH
AKVEVVDEERYDIEAKCLHNTREIKDLKLVMDLRGKFKRPPLRRVRSADAMLRALGSKHKVSMDLRA
NLKSVKKEDTEKERPVEVDWRKNVEAMSGMEGRKKMFDAAKSPTSQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

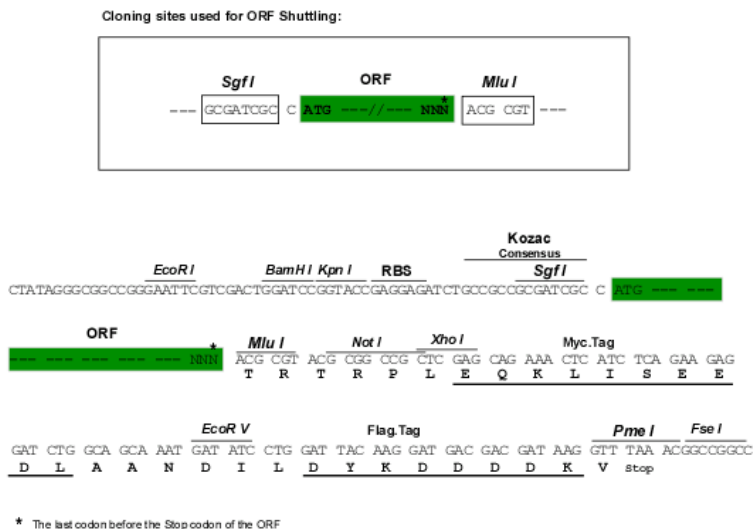


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Chromatograms: https://cdn.origene.com/chromatograms/mk6054_d06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003281

ORF Size: 561 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_003281.4](#)

RefSeq Size: 6162 bp

RefSeq ORF: 564 bp

Locus ID: 7135

UniProt ID: [P19237](#)

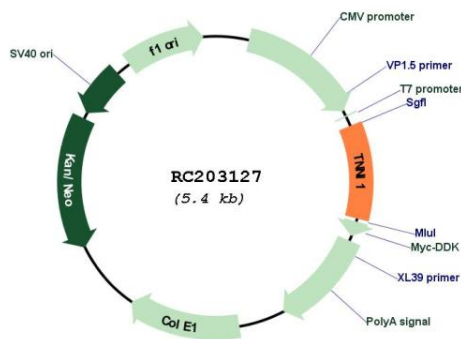
Cytogenetics: 1q32.1

Domains: Troponin

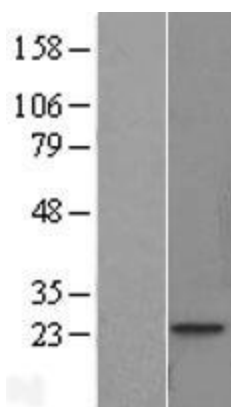
MW: 21.7 kDa

Gene Summary: Troponin proteins associate with tropomyosin and regulate the calcium sensitivity of the myofibril contractile apparatus of striated muscles. Troponin I (TnI), along with troponin T (TnT) and troponin C (TnC), is one of 3 subunits that form the troponin complex of the thin filaments of striated muscle. TnI is the inhibitory subunit; blocking actin-myosin interactions and thereby mediating striated muscle relaxation. The TnI subfamily contains three genes: TnI-skeletal-fast-twitch, TnI-skeletal-slow-twitch, and TnI-cardiac. The TnI-fast and TnI-slow genes are expressed in fast-twitch and slow-twitch skeletal muscle fibers, respectively, while the TnI-cardiac gene is expressed exclusively in cardiac muscle tissue. This gene encodes the Troponin-I-skeletal-slow-twitch protein. This gene is expressed in cardiac and skeletal muscle during early development but is restricted to slow-twitch skeletal muscle fibers in adults. The encoded protein prevents muscle contraction by inhibiting calcium-mediated conformational changes in actin-myosin complexes. [provided by RefSeq, Jul 2008]

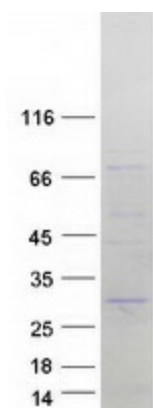
Product images:



Circular map for RC203127



Western blot validation of overexpression lysate (Cat# [LY401132]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203127 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TNNI1 protein (Cat# [TP303127]). The protein was produced from HEK293T cells transfected with TNNI1 cDNA clone (Cat# RC203127) using MegaTran 2.0 (Cat# [TT210002]).