

Product datasheet for SC119930

Cardiac Troponin I (TNNI3) (NM_000363) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cardiac Troponin I (TNNI3) (NM_000363) Human Untagged Clone
Tag:	Tag Free
Symbol:	Cardiac Troponin I
Synonyms:	CMD1FF; CMD2A; CMH7; cTni; RCM1; TNNC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC119930 representing NM_000363. Blue=Insert sequence Red=Cloning site Green=Tag(s)

```
GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCC CGGATCGCC
ATGGCGGATGGGAGCAGCGATGCGGCTAGGGAACCTCGCCCTGCACCAGCCCAATCAGACGCCGCTCC
TCCAACTACCGCGCTTATGCCACGGAGCCGACGCCAAGAAAAAATCTAAGATCTCCGCCTCGAGAAAA
TTGCAGCTGAAGACTCTGCTGCTGCAGATTGCAAAGCAAGAGCTGGAGCGAGAGGCGGAGGAGCGGCGC
GGAGAGAAGGGGCGCGCTCTGAGCACCCGCTGCCAGCCACTGGAGTTGGCCGGGCTGGGCTTCGCGGAG
CTGCAGGACTTGTGCCGACAGCTCCACGCCCGTGTGGACAAGGTGGATGAAGAGAGATACGACATAGAG
GCAAAAGTCACCAAGAACATCACGGAGATTGCAGATCTGACTCAGAAGATCTTTGACCTTCGAGGCAAG
TTTAAGCGGCCACCCTGCGGAGAGTGAGGATCTCTGCAGATGCCATGATGCAGGCGCTGCTGGGGGCC
CGGGCTAAGGAGTCCCTGGACCTGCGGGCCACCTCAAGCAGGTGAAGAAGGAGGACACCGAGAAGGAA
AACC GGGAGGTGGGAGACTGGCGCAAGAACATCGATGCACTGAGT GGAATGGAGGCGCAAGAAAAAG
TTTGAGAGCTGA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Chromatograms:	https://cdn.origene.com/chromatograms/ja2578_e03.zip
Restriction Sites:	Sgfl-Mlul
ACCN:	NM_000363
Insert Size:	633 bp



[View online »](#)

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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_000363.2](#)

RefSeq Size: 866 bp

RefSeq ORF: 633 bp

Locus ID: 7137

UniProt ID: [P19429](#)

Cytogenetics: 19q13.42

Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Stem cell - Pluripotency

Protein Pathways: Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)

MW: 24 kDa

Gene Summary:

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. This gene encodes the TnI-cardiac protein and is exclusively expressed in cardiac muscle tissues. Mutations in this gene cause familial hypertrophic cardiomyopathy type 7 (CMH7) and familial restrictive cardiomyopathy (RCM). Troponin I is useful in making a diagnosis of heart failure, and of ischemic heart disease. An elevated level of troponin is also now used as indicator of acute myocardial injury in patients hospitalized with moderate/severe Coronavirus Disease 2019 (COVID-19). Such elevation has also been associated with higher risk of mortality in cardiovascular disease patients hospitalized due to COVID-19. [provided by RefSeq, Aug 2020]