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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:	TNNI3
Synonyms:	CMD1FF; CMD2A; CMH7; cTnI; RCM1; TNNC1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>NCBI ORF sequence for NM_000363, the custom clone sequence may differ by one or more nucleotides

ATGGCGGATGGGAGCAGCGATGCGGCTAGGGAACCTCGCCCTGCACCAGCCCCAATCAGACGCCGCTCCT
CCAACTACCGCGCTTATGCCACGGAGCCGCACGCCAAGAAAAAATCTAAGATCTCCGCCTCGAGAAAATT
GCAGCTGAAGACTCTGCTGCTGCAGATTGCAAAGCAAGAGCTGGAGCGAGAGGCGGAGGAGCGGCGCGGA
GAGAAGGGGCGCGCTCTGAGCACCCGCTGCCAGCCACTGGAGTTGGCCGGGCTGGGCTTCGCGGAGCTGC
AGGACTTGTGCCGACAGCTCCACGCCCGTGTGGACAAGGTGGATGAAGAGAGATACGACATAGAGGCAAA
AGTCACCAAGAACATCACGGAGATTGCAGATCTGACTCAGAAGATCTTTGACCTTCGAGGCAAGTTTAAG
CGGCCCACCCTGCGGAGAGTGAGGATCTCTGCAGATGCCATGATGCAGGCGCTGCTGGGGGCCCGGGCTA
AGGAGTCCCTGGACCTGCGGGCCCACCTCAAGCAGGTGAAGAAGGAGGACACCGAGAAGGAAAACCGGGA
GGTGGGAGACTGGCGCAAGAACATCGATGCACTGAGTGGAATGGAGGGCCGCAAGAAAAAGTTTGAGAGC
TGA

Chromatograms:	https://cdn.origene.com/chromatograms/ja2578_e03.zip
Restriction Sites:	SgfI-MluI
ACCN:	NM_000363
Insert Size:	2250 bp

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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, NP_000354.2
RefSeq Size:	866 bp
RefSeq ORF:	1626 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)

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]