

Product datasheet for SC125249

CMH1 (MYH7) (NM_000257) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CMH1 (MYH7) (NM_000257) Human Untagged Clone
Tag:	Tag Free
Symbol:	CMH1
Synonyms:	CMD1S; CMH1; MPD1; MYHCB; SPMD; SPMM
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC125249 sequence for NM_000257 edited (data generated by NextGen Sequencing)

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Clone variation with respect to NM_000257.2

189 c=>t;732 c=>t;1062 c=>t;2967 t=>c

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000257 unedited
 ACTATAGGGCGGCGCGAATTCGGCAGCAGGTCCTCGCAGGCCTTGGCCCTTTCTCA
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 TGGGGCTGCCGCCCTACCTGCGCAAGTCAGAGAAGGAGCGGCTAGAAGCGCAGACCAG
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3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000257 unedited
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 CTTGCAGGGTCCCTTAAATGGGGTCTGTTTCCAATGTTTCTTTTTCATGGCGCTCCC
 AAGTTGGGGCCGCTGGGTTGTTCCCTGGCTCCCTTTCTTTAACTTTCTTCTG

Restriction Sites:	Please inquire
ACCN:	NM_000257
Insert Size:	6000 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_000257.1 , NP_000248.1
RefSeq Size:	6008 bp
RefSeq ORF:	5808 bp
Locus ID:	4625
UniProt ID:	P12883
Cytogenetics:	14q11.2
Domains:	IQ, myosin_head, Myosin_tail, M, Myosin_N
Protein Pathways:	Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), Tight junction, Viral myocarditis

Gene Summary:

Muscle myosin is a hexameric protein containing 2 heavy chain subunits, 2 alkali light chain subunits, and 2 regulatory light chain subunits. This gene encodes the beta (or slow) heavy chain subunit of cardiac myosin. It is expressed predominantly in normal human ventricle. It is also expressed in skeletal muscle tissues rich in slow-twitch type I muscle fibers. Changes in the relative abundance of this protein and the alpha (or fast) heavy subunit of cardiac myosin correlate with the contractile velocity of cardiac muscle. Its expression is also altered during thyroid hormone depletion and hemodynamic overloading. Mutations in this gene are associated with familial hypertrophic cardiomyopathy, myosin storage myopathy, dilated cardiomyopathy, and Laing early-onset distal myopathy. [provided by RefSeq, Jul 2008]