

## Product datasheet for **SC313891**

### Caldesmon (CALD1) (NM\_033140) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Caldesmon (CALD1) (NM_033140) Human Untagged Clone
Tag:	Tag Free
Symbol:	CALD1
Synonyms:	CDM; H-CAD; HCAD; L-CAD; LCAD; NAG22
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_033140, the custom clone sequence may differ by one or more nucleotides

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ATGCTGGGTGGATCCGGATCGCATGGAAGACGCAGCCTGGCCGCGCTCTCCCAAATCGCC
TACCAGAGGAATGACGATGATGAAGAGGAGGCAGCCCGGGAACGGCGCCCGCAGCCGA
CAGGAACGGCTGCGGCAGAAGCAGGAGGAAGAATCCTTGGGACAGGTGACCGACCAGGTG
GAGGTGAATGCCAGAACAGTGTGCCTGACGAGGAGGCCAAGACAACCACCACAAACACT
CAAGTGAAGGGGATGATGAGGCCGATTCTGGAGCGCCTGGCTCGGCGTGAGGAAAGA
CGCCAAAAACGCCTTCAGGAGGCTCTGGAGCGGCAGAAGGAGTTCGACCAACAATAACA
GATGCAAGTCTGTGCTCCCAAGCAGAAGAATGCAAAATGACACAGCAGAAAATGAAACT
ACCGAGAAGGAAGAAAAAGTGAAGTCCCAAGAAAGATACGAGATAGAGGAAACAGAA
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CAGATCAAAGATGAAAAGATTAAGAGGACAAAGAACCCAAAGAAAGAAAGTAAAGAGCTTC
ATGGATCGAAAGAAGGGATTTACAGAAGTTAAGTCGCAGAATGGAGAATTCATGACCCAC
AACTTAAACATACTGAGAATACTTTAGCCGCCCTGGAGGGAGGGCCAGCGTGGACACC
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CGTCGCGGGGAGACCCGAGAGCGAAGAGTTTCGAGAAGCTCAAACAGAAGCAGCAGGAGGCG
GCTTTGGAGCTGGAGGAACTCAAGAAAAAGAGGGAGGAGAGAAGGAAGGTCTGGAGGAG
GAAGAGCAGAGGAGGAAGCAGGAGGAAGCCGATCGAAAACCTCAGAGAGGAGGAAGAGAAG
AGGAGGCTAAAGGAAGAGATTGAAAGGCGAAGAGCAGAAGCTGCTGAGAAAAGCCAGAAG
ATGCCAGAAGATGGCTTGTGAGTACAAAGAAACCATTCAAGTGTTCCTCCTAAAGGT
TCATCTCTCAAGATAGAAGAGCGAGCAGAATTTTTGAATAAGTCTGTGCAGAAAAGCAGT
GGTGTCAAATCGACCCATCAAGCAGCAATAGTCTCAAGATTGACAGCAGACTGGAGCAG
TATACCAGTGCAATTGAGGGAACAAAAAGCGCAAACCTACAAAGCCGGCAGCCTCGGAT
CTTCCTGTCTGCTGAAGGTGTACGCAACATCAAGATATGTGGGAGAAAGGGAATGTG
TTTTCATCCCCACTGCAGCAGGCACACCAATAGGAAACTGCTGGCTTGAAGGTAGGG
GTTTCTAGCCGCATCAATGAATGCTAACTAAAACCCAGATGGAAACAAGTCACTGCT
CCCAAACCTTCTGACTTGAGACCAGGAGACGTATCCAGCAAGCGGAACCTCTGGGAAAAG
CAATCTGTGGATAAAGTCACTTCCCCACTAAGGTT
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Restriction Sites: Please inquire



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<b>ACCN:</b>	NM_033140
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_033140.2</a> , <a href="#">NP_149131.1</a>
<b>RefSeq Size:</b>	4204 bp
<b>RefSeq ORF:</b>	1599 bp
<b>Locus ID:</b>	800
<b>UniProt ID:</b>	<a href="#">Q05682</a>
<b>Cytogenetics:</b>	7q33
<b>Domains:</b>	Caldesmon
<b>Protein Pathways:</b>	Vascular smooth muscle contraction
<b>Gene Summary:</b>	<p>This gene encodes a calmodulin- and actin-binding protein that plays an essential role in the regulation of smooth muscle and nonmuscle contraction. The conserved domain of this protein possesses the binding activities to Ca(2+)-calmodulin, actin, tropomyosin, myosin, and phospholipids. This protein is a potent inhibitor of the actin-tropomyosin activated myosin MgATPase, and serves as a mediating factor for Ca(2+)-dependent inhibition of smooth muscle contraction. Alternative splicing of this gene results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (5) differs in the 5' UTR and 5' coding region, and uses an alternate in-frame splice site and lacks an alternate in-frame exon in the central coding region, compared to variant 1. It is mainly expressed in non-muscle tissues or cells. The resulting isoform (5, also known as HeLa I-CaD II) has a distinct N-terminus and is shorter than isoform 1.</p>