

## Product datasheet for **SC337196**

### **ACTN2 (NM\_001278344) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ACTN2 (NM_001278344) Human Untagged Clone
Tag:	Tag Free
Symbol:	ACTN2
Synonyms:	CMD1AA; CMH23; MPD6; MYOCOZ
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_001278344, the custom clone sequence may differ by one or more nucleotides

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ATGACGTACGTCCTTGCTTCTACCACGCTTTTGGCGGCGGGAGCAGGTTAGACAAAGTCTTAAAGCAC
ACTCAGCTCTGTGAAGGATCCCCCTCCAGAAAGTTCTACATGTTTCATATCAGGAGATGAGGAGGTCTTC
AGTGAATTC AAGTCAATGGCCGAGACAGCGGCTAACAGGATATGTAAGGTTCTTGCTGTGAATCAAGAG
AATGAGAGGCTGATGGAAGAATATGAGAGGCTAGCGAGTGAGCTTTTGGAAATGGATTTCGTCGCACGATCC
CCTGGCTGGAGAACCGGACTCCCAGAGAAGACCATGCAAGCCATGCAGAAGAAGCTGGAGGACTTCCGGGA
TTACCGCCGGAAGCACAAGCCACCAAGGTGCAGGAGAAAATGCCAGCTGGAGATCAACTTCAACACGCTG
CAGACCAAGCTGCGGATCAGCAACCGTCTGCCTTCATGCCCTCCGAGGGCAAGATGGTGTCCGATATTG
CTGGTGCCTGGCAGAGGCTGGAGCAGGCTGAGAAGGTTACGAGGAGTGGTTGCTCAATGAGATTCGGAG
ACTGGAGCGCTTGAACACCTGGCTGAGAAGTTCAGGCAGAAGGCCTCAACGCACGAGACTTGGGCTTAT
GGCAAAGAGCAGATCTTGCTGCAGAAGGATTACGAGTCCGCGTGCCTGACAGAGGTGCGGGCTCTGCTGC
GGAAGCAGAGGGCTTCGAGAGCGACTGGCAGCGCACCAGGACCGCTGGAGCAGATCGCAGCCATCGC
GCAGGAGCTCAATGAACTGGACTATCACGACGCTGTGAATGTCAATGATCGGTGCCAGAAAATTTGTGAC
CAGTGGGACCGACTGGGAACGCTTACTCAGAAGAGGAGAGAAGCCCTAGAGAGAATGGAGAAATGCTAG
AAACCATTGATCAGCTTACCTGGAGTTTGCCAAGAGGGCTGCTCCTTTCAACAATTGGATGGAGGGCGC
TATGGAGGATCTGCAAGATATGTTTCATTGTCCACAGCATTGAGGAGATCCAGAGTCTGATCACTGCGCAT
GAGCAGTTC AAGGCCACGCTGCCCGAGGCGGACGGAGAGCGGCAGTCCATCATGGCCATCCAGAACGAGG
TGGAGAAGGTGATT CAGAGCTACAACATCAGAATCAGCTCAAGCAACCCGTACAGCACTGTACCCATGGA
TGAGCTCCGACCAAGTGGGACAAGGTGAAGCAACTCGTGCCCATCCCGCATCAATCCCTGCAGGAGGAG
CTGGCTCGCCAGCATGCTAACGAGCGTCTGAGGCGCCAGTTTGTGCCCAAGCCAATGCCATTGGGCCCT
GGATCCAGAACAAGATGGAGGAGATTGCCCGAGCTCCATCCAGATCACAGGAGCCCTGGAAGACCAGAT
GAACCAGCTGAAGCAGTATGAGCACAACATCATCAACTATAAGAACAACATCGACAAGCTGGAGGGAGAC
CATCAGCTCATCCAGGAGGCCCTTGCTTTGACAACAAGCACACGAACTACACGATGGAGCACATTCGTG
TTGGATGGGAGCTGCTGCTGACAACCATCGCCAGAACCATCAATGAGGTGGAGACTCAGATCCTGACGAG
AGATGCGAAGGGCATCACCAGGAGCAGATGAATGAGTTCAGAGCCTCCTTCAACCCTTTGACAGGAGG
AAGAATGGCCTGATGGATCATGAGGATTCAGAGCCTGCCTGATTTCCATGGGTTATGACCTGGGTGAAG
CCGAATTTGCCCGCATTATGACCCTGGTAGATCCCAACGGGCAAGGCACCGTACCTTCCAATCCTTCAT
CGACTTATGACTAGAGAGACGGCTGACACCGACTGCCGAGCAGGTATCGCCTCCTTCCGGATCCTG
GCTTCTGATAAGCCATACATCCTGGCGGAGGAGCTGCGTCCGGAGCTGCCCGGATCAGGCCAGTACT
GCATCAAGAGGATGCCCGCTACTCGGGCCAGGCAAGTGTGCTGGTGCCTGGATTACGCTGCGTTCTC
TTCCGCACTCTACGGGAGAGCGATCTGTGA
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**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_001278344

**OTI Disclaimer:** 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).

**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).

<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_001278344.1</a> , <a href="#">NP_001265273.1</a>
<b>RefSeq Size:</b>	5123 bp
<b>RefSeq ORF:</b>	2061 bp
<b>Locus ID:</b>	88
<b>UniProt ID:</b>	<a href="#">P35609</a>
<b>Cytogenetics:</b>	1q43
<b>Protein Pathways:</b>	Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Focal adhesion, Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Systemic lupus erythematosus, Tight junction
<b>Gene Summary:</b>	<p>Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal isoform is found along microfilament bundles and adherens-type junctions, where it is involved in binding actin to the membrane. In contrast, skeletal, cardiac, and smooth muscle isoforms are localized to the Z-disc and analogous dense bodies, where they help anchor the myofibrillar actin filaments. This gene encodes a muscle-specific, alpha actinin isoform that is expressed in both skeletal and cardiac muscles. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2013]</p> <p>Transcript Variant: This variant (3) contains two alternate internal exons compared to variant 1. These differences cause translation initiation at a downstream AUG and result in an isoform (3) with a shorter N-terminus, compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>