

Product datasheet for **SC110819**

ACTN2 (NM_001103) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACTN2 (NM_001103) Human Untagged Clone
Tag:	Tag Free
Symbol:	ACTN2
Synonyms:	CMD1AA; CMH23; MPD6; MYOCOZ
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_001103 edited
 CCAACCGAGCGCCATGAACCAGATAGAGCCCGGCGTGCAGTACAACACTACGTGTACGACGA
 GGATGAGTACATGATCCAGGAGGAGGAGTGGGACCGCGACCTGCTCCTGGACCCAGCCTG
 GGAGAAGCAGCAGAGGAAGACCTTCACTGCCTGGTGTAACTCCCACCTAAGGAAAGCCGG
 CACCCAGATTGAGAACATCGAGGAAGACTTCAGGAATGGCCTTAAGCTCATGCTGCTTTT
 GGAAGTCACTCAGGGGAAAGGCTGCCAAACCTGACCGGGGAAAAATGCGGTTCCACAA
 AATTGCTAATGTCAACAAAGCTTTGGATTACATAGCCAGCAAGGGGTGAAACTGGTGTG
 CATCGGCCGCTGAAGAAATTGTTGATGGCAATGTGAAAATGACCCTGGGTATGATCTGGAC
 CATCATCCTTCGCTTTGCTATTCAAGGATATTTGCGTTGAAGAAACATCTGCCAAAGAAGG
 TCTGCTGCTTTGGTGTGACAGGAAAACTGCTCCTTATAGAAAATGTGAACATTCAGAACTT
 CCATACTAGCTGGAAAGATGGCCTTGGACTCTGTGCCCTCATCCACCGACACCGGCTGA
 CCTCATTGACTACTCAAAGCTTAACAAGGATGACCCCATAGGAAATATTAACCTGGCCAT
 GGAATCGCTGAGAAGCACCTGGATATTCCTAAAATGTTGGATGCTGAAGACATCGTGAA
 CACCCCTAAACCCGATGAAAGAGCCATCATGACGTACGTCTCTTGCTTCTACCACGCTTT
 TGCGGGCGCGGAGCAGGCGGAGACAGCGGCTAACAGGATATGTAAGGTTCTTGCTGTGAA
 TCAAGAGAATGAGAGGCTGATGGAAGAATATGAGAGGCTAGCGAGTGAGCTTTTGAAGT
 GATTCGTGCGACGATCCCTGGCTGGAGAACCGGACTCCCAGAGAAGACCATGCAAGCCAT
 GCAGAAGAAGCTGGAGGACTTCCGGGATTACCGCCGGAAGCACAAGCCACCAAGGTGCA
 GGAGAAATGCCAGCTGGAGATCAACTTCAACACGCTGCAGACCAAGCTGCGGATCAGCAA
 CCGTCTGCCTTCATGCCTCCGAGGGCAAGATGGTGTGCGGATATTGCTGGTGCCTGGCA
 GAGGCTGGAGCAGGCTGAGAAGGTTACGAGGAGTGGTTGCTCAATGAGATTGCGAGACT
 GGAGCGCTTGGAAACCTGGCTGAGAAGTTCAGGCAGAAGGCTCAACGCACGAGACTTG
 GGCTTATGGCAAAGAGCAGATCTTGCTGCAGAAGGATTACGAGTGGCGTGCCTGCACAGA
 GGTGCGGGCTCTGCTGCGGAAGCACGAGGCGTTGAGAGCGACCTGGCAGCGCACCAAGGA
 CCGCGTGGAGCAGATCGCAGCCATCGCGCAGGAGCTCAATGAACTGGACTATCACGACGC
 TGTGAATGTCAATGATCGGTGCCAGAAAATTTGTGACCAGTGGGACCGACTGGGAACGCT
 TACTCAGAAGAGGAGAGAAGCCCTAGAGAGAATGGAGAAAATGCTAGAAAACATTGATCA
 GCTTACCTGGAGTTTGCCAAGAGGGCTGCTCCTTTCAACAATTGGATGGAGGGCGCTAT
 GGAGGATCTGCAAGATATGTTTCATTGTCCACAGCATTGAGGAGATCCAGAGTCTGATCAC
 TGCGCATGAGCAGTTCAAGGCCACGCTGCCCGAGGCGGACGGAGAGCGGCAGTCCATCAT
 GGCCATCCAGAACGAGGTGGAGAAGGTGATTTCAGAGCTACAACATCAGAATCAGCTCAAG
 CAACCCGTACAGCACTGTCAACATGGATGAGCTCCGGACCAAGTGGGACAAGGTGAAGCA
 ACTCGTGCCCATCCGCGATCAATCCCTGCAGGAGGAGCTGGCTCGCCAGCATGCTAACGA
 GCGTCTGAGGCGCCAGTTTGTGTCGCCAAGCCAATGCCATTGGGCCCTGGATCCAGAACAA
 GATGGAGGAGATTGCCGGAGCTCCATCCAGATCACAGGAGCCCTGGAAGACCAGATGAA
 CCAGCTGAAGCAGTATGAGCACAAACATCATCAACTATAAGAACAACATCGACAAGCTGGA
 GGGAGACCATCAGCTCATCCAGGAGGCCCTTGTCTTTGACAACAAGCACACGAACATACAC
 GATGGAGCACATTGCTGTTGGATGGGAGCTGCTGCTGACAACCATCGCCAGAACCATCAA
 TGAGTGGAGACTCAGATCCTGACGAGAGATGCGAAGGGCATCACCCAGGAGCAGATGAA
 TGAGTTACAGAGCCTCCTTCAACCACTTTGACAGGAGGAAGAATGGCCTGATGGATCATGA
 GGATTTACAGAGCCTGCCTGATTTCCATGGGTTATGACCTGGGTGAAGCCGAATTTGCCCC
 CATTATGACCCTGGTAGATCCCAACGGGCAAGGCACCGTACCTTCCAATCCTTCATCGA
 CTTTCATGACTAGAGAGACGGCTGACACCGACACTGCCGAGCAGGTATCGCCTCCTTCCG
 GATCCTGGCTTCTGATAAGCCATACATCCTGGCGGAGGAGCTGCGTGGGAGCTGCCCC
 GGATCAGGCCAGTACTGCATCAAGAGGATGCCCGCTACTCGGGCCAGGCAGTGTGCC
 TGGTGCATGGATTACGCTGCGTCTCTTCCGCACTCTACGGGAGAGCGATCTGTGA

Restriction Sites: ECoRI-NOT

ACCN: NM_001103

Insert Size: 2800 bp

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).
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_001103.1 , NP_001094.1
RefSeq Size:	4181 bp
RefSeq ORF:	2685 bp
Locus ID:	88
UniProt ID:	P35609
Cytogenetics:	1q43
Domains:	CH, spectrin, EFh
Protein Pathways:	Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Focal adhesion, Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Systemic lupus erythematosus, Tight junction
Gene Summary:	<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 (1) encodes one of the longer isoforms (1) of this gene.</p> <p>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>