

Product datasheet for **SC302972**

ACTN3 (NM_001104) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACTN3 (NM_001104) Human Untagged Clone
Tag:	Tag Free
Symbol:	ACTN3
Synonyms:	ACTN3D
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_001104 edited
 GCCAGGAGCCCGATCGAGATGATGATGGTTATGCAGCCCGAGGGTCTGGGGGCCGGGAG
 GGGCGCTTTGCGGGCGGCGGGGGCGGCGAGTACATGGAACAGGAGGAGGACTGGGAC
 CGCGACCTGCTGCTGGACCCGGCCTGGGAGAAGCAGCAGCGGAAAACCTTCACTGCCTGG
 TGCAACTCACACCTGCGCAAGGCAGGCACCCAGATCGAGAACATCGAGGAAGATTCCCG
 AATGGCTCAAACCTCATGCTGCTCCTGGAGGTCATTTCAAGTGAGAGGCTGCCTAGGCCA
 GATAAAGGCAAGATGCGCTTCCACAAAATCGCCAACGTTAACAAAGGCCCTGGACTTCATT
 GCCAGCAAGGGGTTAAACTGGTGTCCATTGGTGTGAAGAGATTGTTGACGGGAACCTG
 AAGATGACCTGGGCATGATCTGGACCATCATCCTTCGCTTCGCCATCCAGGACATCTCT
 GTGGAAGAAAACCTCAGCCAAGGAAGGCTTGCTTCTGTGGTGCCAGAGGAAGACAGCACCG
 TACCGCAACGTCAACGTGCAGAACTTCCACACCAGCTGGAAGGATGGCCTGGCCCTCTGT
 GCCCTCATCCACCGACACCGCCCTGACCTCATCGACTACGCCAACTGCGAAAGGATGAC
 CCCATCGGAAACCTGAACACTGCCTTTGAGGTGGCAGAGAAAATACCTGGACATCCCCAAG
 ATGTTGGATGCAGAAGACATTGTGAACACCCCAAAGCCGGATGAGAAGGCCATCATGACC
 TATGTGTCTGCTTCTACCATGCCTTTGCCGGGGCTGAGCAGGCAGAGACAGCTGCCAAC
 AGGATCTGCAAGGTGCTGGCAGTGAACCAGGAAAACGAGAAGCTGATGGAGGAGTATGAG
 AAGCTTGCCAGTGAGCTGCTGGAGTGGATCCGCCGCACTGTCCCATGGCTGGAGAACCGT
 GTGGGTGAGCCCAGCATGAGTGCCATGCAGCGCAAACCTAGAGGACTTTCGGGACTACCGG
 CGTCTGCACAAGCCGCCCGCATTACAGGAAAAGTGCCAGCTGGAGATCAACTTCAACACA
 CTGCAGACCAAGTTGGCGCTCAGCCACCGGCTGCCTTCATGCCCTCCGAGGGCAAGCTG
 GTCTCGGACATCGCCAACGCCTGGCGGGGGCTGGAGCAGGTGAAAAGGGCTATGAGGAC
 TGGTGTCTCTCGAGATCCGGCGCCTGCAGCAGTCCAGCACCTGGCTGAGAAGTTCCGG
 CAGAAGGCCTCCCTGCACGAAGCCTGGACCCGGGAAAAGGAGGAGATGCTGAGCCAGCGC
 GACTACGATTTCGGCTTTGCTACAGGAGGTGCGGGCGTTGCTGCGGCGCCACGAGGCTTT
 GAGAGCGACCTGGCGGCCACCCAGGACCGCTGGAGCACATTGCCGCGCTGGCCCAGGAG
 CTCAATGAGCTGGACTACCACGAGGCAGCCTCAGTGAATAGCCGCTGCCAGGCCATCTGC
 GATCAGTGGGACAACCTGGGCACCCTGACCCAGAAGAGGCGGGATGCGCTAGAGCGGATG
 GAGAAGCTCCTGGAGACCATTGACCAGCTGCAACTGGAGTTTCCCGGCGGGCCGCGCCC
 TTCAACAACCTGGCTGGATGGTGGCTGGAGGACCTGCAGGACGTGTGGCTGGTACACTCT
 GTGGAGGAGACCCAGAGCCTGCTGACAGCGCACGATCAGTTCAAGGCAACACTGCCCGAG
 GCTGACCGAGAGCGAGGTGCCATCATGGGCATCCAGGGTGAATCCAGAAGATCTGCCAG
 ACGTATGGGCTGCGGCCCTGCTCCACCAATCCCTACATACCCTCAGCCCGCAGGACATC
 AACACCAAGTGGGATATGGTCCGAAAGCTGGTGCCAGCCGTGACCAGACACTGCAGGAG
 GAGCTGGCACGGCAGCAGGTAACGAGAGGCTCCGGCGACAGTTTGGCGCCAGGCCAAT
 GCCATTGGACCCTGGATCCAGGCGAAGGTGGAGGAAGTGGGGCGGCTGGCAGCAGGGCTA
 GCTGGCTCTCTGGAGGAGCAGATGGCTGGGCTACGGCAGCAGGAGCAGAACATTATCAAC
 TACAAGACTAACATTGACCGGCTGGAGGGTGACCACCAGCTGCTGCAGGAGAGCCTGGTG
 TTCGACAATAAGCACACCGTCTACAGCATGGAGCACATCCGCTGGGCTGGGAGCAGCTC
 CTCACCTCCATTGCCCGCACCATCAATGAAGTGGAGAACCAGGTAAGTACTGCCCGAGACCC
 AAGGGACTGAGCCAGGAGCAGCTCAACGAGTTCCGAGCATCCTTCAACCACTTTGACAGG
 AAGCGGAATGGGATGATGGAGCCTGATGACTTCCGAGCTTGCCATCTCCATGGGCTAT
 GACCTGGGGGAAGTGGAGTTTGCTCGCATCATGACCATGGTGGACCCCAACGCAGCTGGG
 GTGGTGACCTTCCAGGCCTTCATAGACTTCATGACCCGAGAGACAGCCGAGACTGACACG
 ACTGAGCAAGTTG: TAGCTTCTTCAAGATCTTGGCAGGAGACAAGAATAACATCACCCC
 CGAGGAGCTGCGGCGGAGCTCCCTGCCAAGCAGGCCGAGTACTGCATCCGCCGATGGT
 GCCCTACAAGGGATCCGGGGCCCGGCTGGAGCCCTGGACTACGTGGCCTTCTCCAGTGC
 CCTCTATGGGGAGAGCGACCTTTGACCCCAACCACTGAGGTTCTCTATGCAAGATGGAGA
 GAGGATGCACCCTGTGGCTGATCCCATCCGTCCCTCGGAGCAAGGGCCTAAGAGAAAAGC
 CAGCCAAGTGCTTCT

Restriction Sites:

Please inquire

ACCN:	NM_001104
Insert Size:	2800 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>
OTI Annotation:	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_001104.1.
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_001104.1 , NP_001095.1
RefSeq Size:	2858 bp
RefSeq ORF:	2706 bp
Locus ID:	89
UniProt ID:	Q08043
Cytogenetics:	11q13.2
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:

This gene encodes a member of the alpha-actin binding protein gene family. The encoded protein is primarily expressed in skeletal muscle and functions as a structural component of sarcomeric Z line. This protein is involved in crosslinking actin containing thin filaments. An allelic polymorphism in this gene results in both coding and non-coding variants; the reference genome represents the coding allele. The non-functional allele of this gene is associated with elite athlete status. [provided by RefSeq, Feb 2014]
Transcript Variant: This variant (1, coding) represents the protein-coding allele and encodes isoform 1.