

Product datasheet for **SC323236**

alpha Actinin (ACTN1) (NM_001130004) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha Actinin (ACTN1) (NM_001130004) Human Untagged Clone
Tag:	Tag Free
Symbol:	alpha Actinin
Synonyms:	BDPLT15
Vector:	<u>pCMV6 series</u>



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Fully Sequenced ORF: >NCBI ORF sequence for NM_001130004, the custom clone sequence may differ by one or more nucleotides

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ATGGACCATTATGATTCTCAGCAAACCAACGATTACATGCAGCCAGAAGAGGACTGGGAC
CGGGACCTGCTCCTGGACCCGGCCTGGGAGAAGCAGCAGAGAAAGACATTCACGGCATGG
TGTAACCTCCACCTCCGGAAGCGGGGACACAGATCGAGAACATCGAAGAGGACTTCCGG
GATGGCCTGAAGCTCATGCTGCTGCTGGAGGTCATCTCAGGTGAACGCTTGGCCAAGCCA
GAGCGAGGCAAGATGAGAGTGCACAAGATCTCCAACGTCAACAAGGCCCTGGATTCATA
GCCAGCAAAGGCGTCAAACCTGGTGTCCATCGGAGCCGAAGAAATCGTGGATGGGAATGTG
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TACAAAAATGTCAACATCCAGAACTTCCACATAAGCTGGAAGGATGGCCTCGGCTTCTGT
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CCTACTCACAATCTGAATACGGCTTTTGACGTGGCAGAGAAGTACCTGGACATCCCCAAG
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TACGTGTCTAGCTTCTACCACGCTTCTCTGGAGCCAGAAAGGCGGAGACAGCAGCCAAT
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ATTGAGGAGATCCAGGGACTGACCACAGCCATGAGCAGTTCAGGCCACCCTCCCTGAT
GCCGACAAGGAGCGCTGCCATCCTGGGCATCCACAATGAGGTGTCCAAGATTGTCAG
ACCTACCACGTCAATATGGCGGGCACCACCCCTACACAACCATCACGCCTCAGGAGATC
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TACAAGCCAAAGATTGATCAGCTGGAGGGCGACCACCAGCTCATCCAGGAGGCGCTCATC
TCCACCAACTCGCCAGGACCATCAATGAGGTAGAGAACCAGATCCTGACCCGGGATGCC
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GACAAGAATACTTACCATGGACGAGCTGCGCCGCGAGCTGCCACCCGACCAGGCTGAG
TACTGCATCGCGGGATGGCCCCCTACACCGGCCCGACTCCGTGCCAGGTGCTCTGGAC
TACATGTCTTCTCCACGGCGCTGTACGGCGAGAGTGACCTC

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Restriction Sites: Please inquire
ACCN: NM_001130004

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).
OTI Annotation:	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.
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:	<u>NM_001130004.1</u> , <u>NP_001123476.1</u>
RefSeq Size:	3809 bp
RefSeq ORF:	2745 bp
Locus ID:	87
UniProt ID:	<u>P12814</u>
Cytogenetics:	14q22-q24
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS
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 nonmuscle, cytoskeletal, alpha actinin isoform and maps to the same site as the structurally similar erythroid beta spectrin gene. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (a).</p>