

## Product datasheet for **SC323227**

### alpha Actinin (ACTN1) (NM\_001130005) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	alpha Actinin (ACTN1) (NM_001130005) Human Untagged Clone
Tag:	Tag Free
Symbol:	alpha Actinin
Synonyms:	BDPLT15
Vector:	<u>pCMV6 series</u>



[View online »](#)

**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_001130005, the custom clone sequence may differ by one or more nucleotides

```

ATGGACCATTATGATTCTCAGCAAACCAACGATTACATGCAGCCAGAAGAGGACTGGGAC
CGGGACCTGCTCCTGGACCCGGCCTGGGAGAAGCAGCAGAGAAAGACATTCACGGCATGG
TGTAACCTCCACCTCCGGAAGCGGGGACACAGATCGAGAACATCGAAGAGGACTTCCGG
GATGGCCTGAAGCTCATGCTGCTGCTGGAGGTCATCTCAGGTGAACGCTTGGCCAAGCCA
GAGCGAGGCAAGATGAGAGTGCACAAGATCTCCAACGTCAACAAGGCCCTGGATTTCATA
GCCAGCAAAGGCGTCAAACCTGGTGTCCATCGGAGCCGAAGAAATCGTGGATGGGAATGTG
AAGATGACCTTGGGCATGATCTGGACCATCATCCTGCGCTTTGCCATCCAGGACATCTCC
GTGGAAGAGACTTCAGCCAAGGAAGGGCTGCTCCTGTGGTGTGAGAGAAAGACAGCCCT
TACAAAAATGTCAACATCCAGAACTTCCACATAAGCTGGAAGGATGGCCTCGGCTTCTGT
GCTTTGATCCACCGACACCGGCCGAGCTGATTGACTACGGGAAGCTGCGGAAGGATGAT
CCACTCACAAATCTGAATACGGCTTTTGACGTGGCAGAGAAGTACCTGGACATCCCCAAG
ATGCTGGATGCCAAGACATCGTTGAACTGCCGACCGGATGAGAAAGCCATCATGACT
TACGTGTCTAGCTTCTACCACGCTTCTCTGGAGCCAGAAAGGCGGAGACAGCAGCCAAT
CGCATCTGCAAGGTGTTGGCCGTCAACCAGGAGAACGAGCAGCTTATGGAAGACTACGAG
AAGCTGGCCAGTATCTGTTGGAGTGGATCCGCCGCACAATCCCCTGGCTGGAGAACCGG
GTGCCCGAGAACCACATGCATGCCATGCAACAGAAGCTGGAGGACTTCCGGGACTACCGG
CGCCTGCACAAGCCGCCAAGGTGCAGGAGAAGTGCCAGCTGGAGATCAACTTCAACACG
CTGCAGACCAAGCTGCGGCTCAGCAACCGGCTGCCTTCATGCCCTCTGAGGGCAGGATG
GTCTCGGACATCAACAATGCCTGGGGCTGCCTGGAGCAGTGGAGAAGGGCTATGAGGAG
TGTTGCTGAATGAGATCCGAGGCTGGAGCAGTGGACCACCTGGCAGAGAAGTTCCGG
CAGAAGCCCTCCATCCACGAGGCTGGACTGACGGCAAAGAGGCCATGCTGCGACAGAAG
GACTATGAGACCCACCCTCTCGGAGATCAAGGCCCTGCTCAAGAAGCATGAGGCTTTC
GAGAGTGACCTGGCTGCCACCAGGACCGTGTGGAGCAGATTGCCGCCATCGCACAGGAG
CTCAATGAGCTGGACTATTATGACTCACCCAGTGTCAACGCCCTTGC AAAAAGTCTGT
GACCAGTGGGACAATCTGGGGCCCTAACTCAGAAGCGAAGGGAAGCTCTGGAGCGGACC
GAGAAACTGCTGGAGACCATTGACCAGCTGACTTGGAGTATGCCAAGCGGGCTGCACCC
TTCAACAACCTGGATGGAGGGGGCCATGGAGGACCTGCAGGACACCTTCATTGTGCACACC
ATTGAGGAGATCCAGGGACTGACCACAGCCATGAGCAGTTC AAGGCCACCTCCCTGAT
GCCGACAAGGAGCGCCTGGCCATCCTGGGCATCCACAATGAGGTGTCCAAGATTGTCAG
ACCTACCACGTCAATATGGCGGGCACC AACCCCTACACAACCATCACGCCTCAGGAGATC
AATGGCAAATGGGACCACGTGCGGCAGCTGGTGCCTCGGAGGGACCAAGCTCTGACGGAG
GAGCATGCCCCGACAGCAGCAATGAGAGGCTACGCAAGCAGTTTGGAGCCCAGGCCAAT
GTCATCGGGCCCTGGATCCAGACCAAGATGGAGGAGATCGGGAGGATCTCCATTGAGATG
CATGGGACCTGGAGGACCAGCTCAGCCACCTGCGGCAGTATGAGAAGAGCATCGTCAAC
TACAAGCCAAAGATTGATCAGCTGGAGGGCGACCACCAGCTCATCCAGGAGGCGCTCATC
TTCGACAACAAGCACACCAACTACACCATGGAGCACATCCGTGTGGGCTGGGAGCAGCTG
CTCACCACCATCGCCAGGACCATCAATGAGGTAGAGAACCAGATCCTGACCCGGGATGCC
AAGGGCATCAGCCAGGAGCAGATGAATGAGTTCCGGGCCTCCTTCAACCACTTTGACCGG
AAGAAGACAGGCATGATGGACACGGATGATTTCCGCGCCTGCCTGATCTCCATGGTTAC
AACATGGGAGAAGCAGAAATTTGCCGCATCATGAGCATTGTGGACCCCAACCGCCTGGGG
GTAGTGACATTCCAGGCCTTCATTGACTTCATGTCCC GCGAGACAGCCGACACAGATACA
GCAGACCAAGTCAATGGCTTCCTTCAAGATCCTGGCTGGGGACAAGA ACTACATTACCATG
GACGAGCTGCGCCGAGCTGCCACCCGACCAGGCTGAGTACTGCATCGCGGGATGGCC
CCCTACACCGGCCCGACTCCGTGCCAGGTGCTCTGGACTACATGCTCTTCTCCACGGCG
CTGTACGGCGAGAGTGACCTC

```

**Restriction Sites:** Please inquire  
**ACCN:** NM\_001130005

<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>	<u><a href="#">NM_001130005.1</a>, <a href="#">NP_001123477.1</a></u>
<b>RefSeq Size:</b>	3728 bp
<b>RefSeq ORF:</b>	2664 bp
<b>Locus ID:</b>	87
<b>UniProt ID:</b>	<u><a href="#">P12814</a></u>
<b>Cytogenetics:</b>	14q22-q24
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS
<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 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 (3) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (c) has the same N- and C-termini but is shorter compared to isoform a.</p>