

Product datasheet for **SC119433**

alpha Actinin (ACTN1) (NM_001102) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha Actinin (ACTN1) (NM_001102) Human Untagged Clone
Tag:	Tag Free
Symbol:	alpha Actinin
Synonyms:	BDPLT15
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119433 sequence for NM_001102 edited (data generated by NextGen Sequencing)

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ATGGACCATTATGATTCTCAGCAAACCAACGATTACATGCAGCCAGAAGAGGACTGGGAC
CGGGACCTGCTCCTGGACCCGGCCTGGGAGAAGCAGCAGAGAAAGACATTCACGGCATGG
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Clone variation with respect to NM_001102.3
1297 c=>t

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_001102 unedited NGGTTTAAATTTGTATACGACTCACTATAGGGCGGCCGGAATTCGCACGAGGCTAGTTC AGTGTGCGTGGAGATTAGGTCCAAGCGCCCGCCAGAGGCGGCAGTCCGCGAGCCAGCC GCCGCTGTCGCCGCCAGTAGCAGCCTTCGCCAGCAGCGCCGCGGCGGAACCGGGCGCAGG GGAGCGAGCCCGGCCCGCCAGCCAGCCAGCCAGCCAGCCAGCCACTCCCTCCCCACG CCAGGGCAGCAGCCGTTGCTCAGAGAGAAGGTGGAGGAAGAAATCCAGACCCTAGCACGC GCGCACCATCATGGACCATTATGATTCTCAGCAAACCAACGATTACATGCAGCCAGAAGA GGACTGGGACCGGACCTGCTCCTGGACCCGGCCTGGGAGAAGCAGCAGAAAAGACATT CACGGCATGGTGTAACTCCCACCTCCGGAAGGCGGGGACACAGATCGAGAACATCGAAGA GGACTTCCGGGATGGCTGAAGCTCATGCTGCTGCTGGAGGTCATCTCAGGTGAACGCTT GGCCAAGCCAGAGCGAGGCAAGATGAGAGTGCACAAGATCTCAACGTCAACAAGGCCCT GGATTTTCATAGCCAGCAAAGGCGTCAAACCTGGTGTCCATCGGAGCCCGAAGAAATCGTGG ATTGGGAATGTGAAGATGACCCTGTGCATGACCTGGCCATCATCTGCGCTTTGGCATC CAGGACATCTCCGTGGAAGAGACTTCAGCCAAGGAAGGCCGTCTCTGTGGTGTGAGGC AAGACAGCCCTTACAAAATGTAACCTTCAGAACTCTACATAGCTGGAAGGATGGCCT CGCTTCTGTGCTTTGATCCACCGACACCGCCCACTGTATTGACTCGGTAAGTGGCG AAG</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_001102 unedited CGCGGCACGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTGTCTAGGAGTGTGGTTTT TTTAATACCATCTGTGCCAAGCAATATCAAAGTTGTCCATACTCTCCAAGTTTGCCTAT TTTAATAGACAATATTAATAATTTTTTAAAGTGTGTGCTGATAAAGAGACTAGTCACACC TCTGAGGGGATTTAAAAATGAGAAGCCACATAAATCTCTTCTTAAAAAACAGCCATTT CAAAAGATTTTCTTAATATCATAAAAATTTTTTATGGACAAGTGAGCTAGCAAAACACAC ATGCACCAATGTGCCTTTTGACAAGAGTACCCCTACCCCGACTCCCACACCAAAATGGA CATGAGATTGGAGAAATGAATACAGCAGATGGAACAGATAGAAGAAAAAAAATCAGTAA AAGGATGGAATATAACTTTGTGCTTGGTTATTTTCTATGTGCAACAAAAACAAGACATT TCGGTGCAAAATAGTTAATCTTTCCTCTTTTTTCCATTTGTCTGGTGGAGAAAAAATACT TTTTCTATAATAAAATATGTAGTTTTTTTGGTTTTTAACGTAACTTTTTTTTTCTTTTTG CAGAAAAATAATTTGTAACCTGTCACTTCGCGGGCAGGAGGATCGATGCCACGTGGGCC CCAGCTCACCCGGTGGAGGCTGGGAGCTGAAACCGAACCCAGCAGGATATGGGCGACGG CGGATGTGCAAGGCATGGCACGGCGACAATACNAGGGCGGCCGGGCGGGTGGATTAAA GGTCACTCTCGCGTACAGCGCCGTGGAGATGACATGTANTCCATAACACCCTGCACGGA GTCGGGGCCGTGTAGGGGCCCATCCCGCGCAGCAGTACTCANCCTGTTTCGGTGGCACC TCGCGGCGCAACTCGNCCATGGTAATGTAANTCCTTGCCCCAGCAAGATCTGTAGGNA AGCATGACTGTGGCTGCTGN</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_001102
Insert Size:	3520 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_001102.2 , NP_001093.1
RefSeq Size:	3398 bp
RefSeq ORF:	2679 bp
Locus ID:	87
UniProt ID:	P12814
Cytogenetics:	14q22-q24
Domains:	CH, spectrin, EFh
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 (2) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (b) has the same N- and C-termini but is shorter compared to isoform a.</p>