

Product datasheet for SC119152

alpha smooth muscle Actin (ACTA2) (NM_001613) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha smooth muscle Actin (ACTA2) (NM_001613) Human Untagged Clone
Tag:	Tag Free
Symbol:	alpha smooth muscle Actin
Synonyms:	ACTSA
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC119152 sequence for NM_001613 edited (data generated by NextGen Sequencing)

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ATGTGTGAAGAAGAGGACAGCACTGCCTTGGTGTGTGACAATGGCTCTGGCTCTGTAAG
GCCGGCTTTGCTGGGACGATGCTCCCAGGGCTGTTTTCCCATCCATTGTGGGACGTCCC
AGACATCAGGGGGTGATGGTGGGAATGGGACAAAAAGACAGCTACGTGGGTGACGAAGCA
CAGAGCAAAAAGGAATCCTGACCCTGAAGTACCCGATAGAACATGGCATCATCACCAC
TGGGACGACATGGAAAAGATCTGGCACCCTCTTTCTACAATGAGCTTCGTGTTGCCCT
GAAGAGCATCCCACCCTGCTCACGGAGGCACCCCTGAACCCCAAGGCCAACCGGGAGAAA
ATGACTCAAATTATGTTTGAGACTTTCAATGTCCCAGCCATGTATGTGGCTATCCAGGCG
GTGCTGTCTCTATGCCTCTGGACGCACAACCTGGCATCGTGCTGGACTCTGGAGATGGT
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TCCTTCGTTACTACTGCTGAGCGTGAGATTGTCCGGGACATCAAGGAGAACTGTGTTAT
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AGTTACGAGTTGCCTGATGGGCAAGTGATCACCATCGGAAATGAACGTTTCCGCTGCCCA
GAGACCTGTTCCAGCCATCCTTCATCGGGATGGAGTCTGCTGGCATCCATGAAACCACC
TACAACAGCATCATGAAGTGTGATATTGACATCAGGAAGGACCTCTATGCTAACAAATGTC
CTATCAGGGGGCACCCTATGTACCCTGGCATTGCCGACCGAATGCAGAAGGAGATCAGC
GCCCTAGCACCCAGCACCATGAAGATCAAGATCATTGCCCTCCGGAGCGCAAATACTCT
GTCTGGATCGGTGGCTCCATCCTGGCCTCTCTGTCCACCTCCAGCAGATGTGGATCAGC
AAACAGGAATACGATGAAGCCGGGCCTTCCATTGTCCACCACCAATGCTTCTAA

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Clone variation with respect to NM_001613.2



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001613 unedited
 NGGTCGAATTTGTATACGACTCCTATAGGCGGCCCGCAATTCGCACGAGGGAGCAGCCC
 AGCCAAGCACTGTGAGGAATCCTGTGAAGCAGCTCCAGCTATGTGTGAAGAAGAGGACAG
 CACTGCCTTGGTGTGTGACAATGGCTCTGGGCTCTGTAAGGCCGGCTTTGCTGGGGACGA
 TGCTCCCAGGGCTGTTTTCCCATCCATTGTGGGACGTCCCAGACATCAGGGGGTATGGT
 GGGAAATGGGACAAAAAGACAGCTACGTGGGTGACGAAGCACAGAGCAAAAAGAGGAATCCT
 GACCCTGAAGTACCCGATAGAACATGGCATCATACCAACTGGGACGACATGAAAAAGAT
 CTGGCACCCTCTTTCTACAATGAGCTTCGTGTTGCCCTGAAGAGCATCCCACCCTGCT
 CACGGAGGCACCCTGAACCCCAAGGCCAACCGGAGAAAATGACTCAAATTATGTTTGA
 GACTTTCAATGTCCCAGCCATGTATGTGGCTATCCAGGCGGTGCTGTCTCTATGCCTC
 TGGACGCACAACCTGGCATCGTGTGGACTCTGGAGATGGTGTACCCACAATGTCCCAT
 CTATGAGGGCTATGCCTTGCCCATGCCATCATGCGTCTGGATCTGGCTGGCCGAGATCT
 CACTGACTACCTCATGAAGATCCTGACTGAGCGTGGCTATTCCTTCGTTACTACTGCTGA
 GCGTGAGATTGTCGGGACATCAAGGAGAACTGTGNTATGTAGCTCTGGACTNTGAAAA
 TGAGATGGCCACTGCCGATCCTCATCCTCCTTGAGAAGAGTACGAGTTGCCTGATGG
 GCAAGTGATCACCATCGAANATGAACGTTTTTCGCTGCCANANACCCCTGTCCAGCCATC
 TT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001613 unedited
 ACCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTGGCCAGTAGCCTATTTCA
 GATTTATAAAAAACACATAGGTAACGAGTCAGAGCTTTGGCTAGGAATGATTTGGAAAA
 GAACTGAAGGCATAATTCACAGGACATTCACAGTTGTGTCTAGAGACAGAGAGGAGCA
 GGAAGTGTTTTAGAAGCATTTCGGGTGGACAATGGAAGGCCCGCTTCATCGTATTCCT
 GTTTGCTGATCCACATCTGCTGGAAGGTGGACAGAGAGGCCAGGATGGAGCCACCATCC
 AGACAGAGTATTTGCGCTCCGGAGGGGCAATGATCTTGATCTTCATGGTCTGGGTGCTA
 GGGCCGTGATCTCCTTCTGCATTCGGTCCGCAATGCCAGGTACATAGTGGTGGCCCTG
 ATAGGACATTGTTAGCATAGAGGTCCTTCTCTGATGTCAATATCACACTTCATGATGCTGT
 TGTAGGTGGTTTCATGGATGCCAGCAGACTCCATCCCGATGAAGGATGGCTGGAACAGGG
 TCTCTGGGCAGCGAAACGTTTCATTTCCGATGGTATCACTTGCCCATCAGGCAACTCGT
 AACTCTTCTCAAGGGAGGATGAGGATGCGGCAGTGGCCATCTCATTTTCAAAGTCCAGAG
 CTACATAACACAGTTTTCTCCTTGATGTCGGGACAATCTCACGCTCAGCAGTAGTTACGA
 AGGAATAGCCACGCTCAGTCAGGATCTTCATGANGGTAGTCAGTGAGATCTCGGCCAGCC
 AGATCCAGACGCCTGATGGCATGGGGCAAAGGCTTACCCTCATAGATGGGGACATTGGGG
 GGACACCTTTCCAAAGTACACCCGAGCCGTTGGGCGCTCAAAGCATAAAGAGACACACC
 CGCTGGAAGCCCCCTACCTGGCTGGGACTTGAAAGTTCAAACCT

Restriction Sites:

NotI-NotI

ACCN:

NM_001613

Insert Size:

1410 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:

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_001613.1](#), [NP_001604.1](#)

RefSeq Size: 1330 bp

RefSeq ORF: 1134 bp

Locus ID: 59

UniProt ID: [P62736](#)

Cytogenetics: 10q23.31

Domains: ACTIN

Protein Pathways: Vascular smooth muscle contraction

Gene Summary: This gene encodes one of six different actin proteins. Actins are highly conserved proteins that are involved in cell motility, structure, integrity, and intercellular signaling. The encoded protein is a smooth muscle actin that is involved in vascular contractility and blood pressure homeostasis. Mutations in this gene cause a variety of vascular diseases, such as thoracic aortic disease, coronary artery disease, stroke, and Moyamoya disease, as well as multisystemic smooth muscle dysfunction syndrome. [provided by RefSeq, Sep 2017]
Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1-3 encode the same protein.