

Product datasheet for **SC325018**

alpha smooth muscle Actin (ACTA2) (NM_001141945) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha smooth muscle Actin (ACTA2) (NM_001141945) 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)



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Fully Sequenced ORF: >OriGene sequence for NM_001141945 edited
 CTCTCCCCGCCCCCGGGGCGGCGCCTCACCCACCCGCGCCGAGCGGACCTTTGG
 CTTGGCTTGTGAGGGCTTGTCCAGGAGTTCCGCTCCTCTCTCCAACCGGGTCCCCCTCC
 AGCGACCTAAAGCTTCCAGACTTCCGCTTCAATTCCTGTCCGACCCACGCCACCT
 CAACGTGGAGCGCAGTGGTCTCCGAGGAGCGCCGAGCTGCCCGCCTGCCAGCGGGGT
 CAGCACTTCGCATCAAGGCCAAGAAAAGCAAGTCTCCAGCGTCTGAGCACCCGGGCC
 TGAGGGAAGTCTAACAGCCCCGGGAGCCAGTCTCCAACGCCTCCCGCAGCAGCCCGC
 CGCTCCCAGGTGCCCGCTGCGCCGCTGCGCCGCAATCCCGCACGCGTCCCGCGCCCGC
 CCCACTTTGCCTATCCCCGGGACTAAGACGGGAATCCTGTGAAGCAGCTCCAGCTATGTG
 TGAAGAAGAGGACAGCACTGCCTTGGTGTGTGACAATGGCTCTGGGCTCTGTAAGCCGG
 CTTTGCTGGGACGATGCTCCCAGGGCTGTTTTCCCATCCATTGTGGGACGTCCCAGACA
 TCAGGGGGTGATGGTGGGAATGGGACAAAAGACAGCTACGTGGGTGACGAAGCACAGAG
 CAAAAGAGGAATCCTGACCCTGAAGTACCCGATAGAACATGGCATCATCACCACCTGGGA
 CGACATGAAAAAGATCTGGCACCCTTTCTACAATGAGCTTCGTGTTGCCCTGAAGA
 GCATCCCACCCTGCTCACGGAGCACCCCTGAACCCCAAGCCAACCGGGAGAAAATGAC
 TCAAATATGTTTGAGACTTTCAATGTCCAGCCATGTATGTGGCTATCCAGCGGTGCT
 GTCTCTATGCCTCTGGACGCACAACCTGGCATCGTGCTGGACTCTGGAGATGGTGTAC
 CCAATGTCCCCATCTATGAGGGCTATGCCTTGCCCATGCCATCATGCGTCTGGATCT
 GGCTGGCCGAGATCTCACTGACTACCTCATGAAGATCCTGACTGAGCGTGGCTATTCCTT
 CGTTACTACTGCTGAGCGTGAGATTGTCCGGGACATCAAGGAGAACTGTGTTATGTAGC
 TCTGGACTTTGAAAATGAGATGGCCACTGCCGCATCCTCATCCTCCCTTGAGAAGAGTTA
 CGAGTTGCCTGATGGGCAAGTGATCACCATCGGAAATGAACGTTTCCGCTGCCAGAGAC
 CCTGTTCCAGCCATCCTTCATCGGGATGGAGTCTGCTGGCATCCATGAAACCACCTACAA
 CAGCATCATGAAGTGTGATATTGACATCAGGAAGGACCTCTATGCTAACAAATGTCCTATC
 AGGGGGCACCACTATGTACCCTGGCATTGCCGACCGAATGCAGAAGGAGATCACGGCCCT
 AGCACCCAGCACCATGAAGATCAAGATCATTGCCCTCCGGAGCGCAAATACTCTGTCTG
 GATCGGTGGTCCATCCTGGCCTCTCTGTCCACCTTCCAGCAGATGTGGATCAGCAAACA
 GGAATACGATGAAGCCGGGCCTTCCATTGTCCACCGCAAATGCTTCTAAAACACTTTCCT
 GCTCCTCTGTCTCTAGCACACAACCTGTGAATGCCTGTGGAATTATGCCTTCAGTTCT
 TTTCAAATCATTCTAGCCAAAGCTCTGACTCGTTACCTATGTGTTTTTAATAAATCT
 GAAATAGGCTACTGGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

- Restriction Sites:** Please inquire
- ACCN:** NM_001141945
- Insert Size:** 1800 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).
- 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:

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_001141945.1](#), [NP_001135417.1](#)

RefSeq Size: 1798 bp

RefSeq ORF: 1134 bp

Locus ID: 59

UniProt ID: [P62736](#)

Cytogenetics: 10q23.31

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 (1) represents the longest transcript. Variants 1 and 2 encode the same protein. Variants 1-3 encode the same protein.