

## Product datasheet for RC227802L3

## OriGene Technologies, Inc.

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## alpha smooth muscle Actin (ACTA2) (NM\_001141945) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: alpha smooth muscle Actin (ACTA2) (NM\_001141945) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: alpha smooth muscle Actin

Synonyms: ACTSA

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clo

Sequence:

The ORF insert of this clone is exactly the same as(RC227802).

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF.

**ACCN:** NM\_001141945

ORF Size: 1131 bp





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OTI Disclaimer:

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:customport@origene.com">customport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

**OTI Annotation:** 

This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components:

Locus ID:

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:** <u>NM 001141945.1</u>

RefSeq Size:1798 bpRefSeq ORF:1134 bp

UniProt ID: P62736

Cytogenetics: 10q23.31

**Protein Pathways:** Vascular smooth muscle contraction

59

**MW:** 42 kDa

**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]