

## Product datasheet for MR205873

### Acta2 (NM\_007392) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Acta2 (NM_007392) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Acta2
Synonyms:	0610041G09Rik; a-; a-SMA; Ac; Actvs; al; alphaSMA; SM; SMAalpha; SMalphaA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205873 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGTGTGAAGAGGAAGACAGCACAGCCCTGGTGTGCGACAATGGTCTGGGCTCTGTAAGCCGGCTTCG  
CTGGTGATGATGCTCCAGGGCTGTTTTCCCATCCATCGTGGGACGTCCCAGACATCAGGGAGTAATGGT  
TGGAAATGGGCCAAAAGACAGCTATGTGGGGATGAAGCCAGAGCAAGAGAGGGATCCTGACGCTGAAG  
TATCCGATAGAACACGGCATCATCACCCTGGGACGACATGGAAAAGATCTGGCACCCTTTCTATA  
ACGAGCTTCGTGTGGCCCTGAAGAGCATCCGACACTGCTGACAGAGGCACCACTGAACCCTAAGGCCAA  
CCGGGAGAAAATGACCCAGATTATGTTTGAGACCTTCAATGTCCCGCCATGTATGTGGCTATTCAGGCT  
GTGCTGTCCCTCTATGCCTCTGGACGTACAACCTGGTATTGTGCTGGACTCTGGAGATGGTGTGACTCACA  
ACGTGCCTATCTATGAGGGCTATGCCCTGCCTCATGCCATCATGCGTCTGGACTTGGCTGGCCGAGATCT  
CACCGACTACCTCATGAAGATCCTGACTGAGCGTGGCTATTCCTTCGTGACTACTGCCGAGCGTGAGATT  
GTCCGTGACATCAAGGAGAAGCTGTGCTATGTAGCTCTGGACTTTGAAAATGAGATGGCCACGGCCGCT  
CCTCTTCTCCCTGGAGAAGAGCTACGAACTGCCTGACGGCAGGTGATCACCATTGAAACGAACGCTT  
CCGCTGCCAGAGACTCTTCCAGCCATCTTTCATTGGGATGGAGTCAGCGGCCATCCACGAAACCACC  
TATAACAGCATCATGAAGTGTGATATTGACATCAGGAAGGATCTCTATGCTAACAACTCTGTGTCAGGGG  
GTACCACCATGTACCCAGGCATTGCTGACAGGATGCAGAAGGAGATCACAGCCCTCGACCCAGCACCAT  
GAAGATCAAGATCATTGCCCTCCAGAACGCAAGTACTCTGTCTGGATCGGTGGCTCCATCCTGGCTTCG  
CTGTCTACCTTCCAGCAGATGTGGATCAGCAAACAGGAATACGACGAAGCTGGCCCTCCATCGTCCACC  
GCAATGCTTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR205873 protein sequence  
 Red=Cloning site Green=Tags(s)

MCEEEDSTALVCDNGSGLCKAGFAGDDAPRAVFPISVGRPRHQGVVMGMGQKDSYVGDQAQSKRGILTLK  
 YPIEHGIITNWDMEKIWHHSFYNELRVAPEEHPTLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQA  
 VLSLYASGRTTGIVLDSGDGVTHNVPIYEGYALPHAIMRLDLAGRDLTDYLMKILTERGYSFVTTAEREI  
 VRDIKEKLCYVALDFENEMATAASSSSLEKSYELPDGQVITIGNERFRCPETLFQPSFIGMESAGIHETT  
 YNSIMKCDIDIRKDLYANNVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILAS  
 LSTFQMMWISKQEYDEAGPSIVHRKCF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_007392

**ORF Size:** 1131 bp

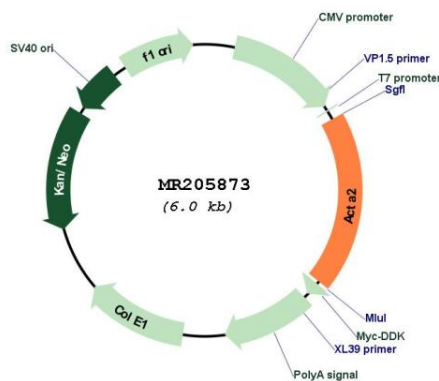
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) 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.

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_007392.1</a> , <a href="#">NM_007392.2</a> , <a href="#">NM_007392.3</a> , <a href="#">NP_031418.1</a>
<b>RefSeq Size:</b>	2572 bp
<b>RefSeq ORF:</b>	1134 bp
<b>Locus ID:</b>	11475
<b>UniProt ID:</b>	<a href="#">P62737</a>
<b>Cytogenetics:</b>	19 C1
<b>MW:</b>	42 kDa
<b>Gene Summary:</b>	The protein encoded by this gene belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha, beta and gamma actin isoforms have been identified, with alpha actins being a major constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell motility. This actin is an alpha actin that is found in smooth muscle. [provided by RefSeq, Feb 2021]

## Product images:



Circular map for MR205873