

## Product datasheet for **MG219492**

### **Acvr2a (NM\_007396) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Acvr2a (NM_007396) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Acvr2a
Synonyms:	ActrIIa; Acvr2; TactrII
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG219492 representing NM\_007396  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGAGCTGCTGCAAAGTTGGCGTTCCGCGTCTTTCTTATCTCTTGCTCTTCAGGTGCTATACTTGGCA  
 GATCAGAAACTCAGGAGTGCTTTTTCTTTAATGCTAATTGGGAAAAGAGACAGAACCAACCGACTGGTGT  
 TGAACCTTGCTATGGTGATAAAGATAAACGCGCATTGTTTTGCTACCTGGAAGAAATTTCTGGTTCC  
 ATTGAAATAGTGAAGCAAGGTTGTTGGCTGGATGATATCAACTGCTATGACAGGACTGATTGTATAGAAA  
 AAAAAGACAGCCCTGAAGTGTACTTTTGTGCTGTGAGGGCAATATGTGTAATGAAAAGTTCTCTTATTT  
 TCCGGAGATGGAAGTACACAGCCCACTCAAATCCTGTTACACCGAAGCCACCCATTACAACATTCTG  
 CTGTATTCCTTGGTACCACTAATGTTAATTGCAGGAATTGTCATTTGTGCATTTTGGGTGTACAGACATC  
 ACAAGATGGCCTACCCTCTGTACTTGTCTACTCAAGACCCAGGACCACCCCACTTCCCCATTACT  
 AGGGTTGAAGCCATTGCAGCTGTTAGAAGTGAAGCAAGGGGAAGATTTGGTTGTGTCTGGAAGCCAG  
 TTGCTCAATGAATATGTGGCTGTCAAAATATTTCCAATACAGGACAAACAGTCTGGCAGAATGAATATG  
 AAGTCTATAGTCTACCTGGAATGAAGCATGAGAACATACTACAGTTCATTGGTGCAGAGAAAAGAGGCAC  
 CAGTGTGGATGTGGACCTGTGGCTAATCACAGCATTTTCATGAAAAGGGCTCACTGTGAGACTTTCTTAAG  
 GCTAATGTGGTCTCTTGGAACTTTGTCAATTGCAGAAACCATGGCTAGAGGATTGGCATAATTTAC  
 ATGAGGATATACCTGGCTTAAAAGATGGCCACAAGCCTGCAATCTCTCACAGGGACATCAAAAGTAAAA  
 TGTGCTGTTGAAAACAATCTGACAGCTGCATTGCTGACTTTGGGTTGGCCTTAAAGTTCGAGGCTGGC  
 AAGTCTGCAGGTGACACCCATGGGCAGGTTGGTACCCGGAGGTATATGGCTCCAGAGGTGTTGGAGGTTG  
 CTATAAAGTTCCAAAGGGACGCATTTCTGAGGATAGATATGACGCCATGGGATTAGTCTTATGGAAAT  
 GGCTTCTCGTTGCACTGCTGCAGATGGACCCGTAGATGAGTACATGTTACCATTTGAGGAAGAAATGGC  
 CAGCATCCATCTCTGAAGATATGCAGGAAGTTGTTGTGCATAAAAAAAGAGGCCTGTTTTAAGAGATT  
 ATTGGCAGAAACATGCAGGAATGGCAATGCTCTGTGAAACGATAGAAGAATGTTGGGATCATGATGCAGA  
 AGCCAGGTTATCAGCTGGATGTGTAGGTGAAAGAATTACTCAGATGCAAAGACTAACAAATATCATTACT  
 ACAGAGGACATTGTAACAGTGGTCACAATGGTGACAAATGTTGACTTTCCTCCAAAGAATCTAGTCTA

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG219492 representing NM\_007396  
 Red=Cloning site Green=Tags(s)

MGAAAKLAFVFLISCSGAILGRSETQECLFFNANWERDRNTQGVPEPCYGDKDKRRHCFATWKNISGS  
 IEIVKQGCWLLDDINCYDRDTCIEKKDSPEVYFCCEGNMCNEKFSYFPEMEVTQPTSNPVTPKPPYYNIL  
 LYSLVPLMLIAGIVICAFWVYRHHKMAYPVLPVPTQDPGPPPPSPLLGLKPLQLLEVKARGRFVWKAQ  
 LLNEYVAVKIFPIQDKQSWQNEYEVYSLPGMKHENILQFIGAERKGTSDVDLWLTAFHEKGSLSDFLK  
 ANVYSWNECHIAETMARGLAYLHEDIPGLKDGHKPAISHRDIKSKNVLLKNNLTACIADFLALKFEAG  
 KSAGDTHGQVTRRYMAPEVLEGAINFQRDAFLRIDMYAMGLVLWELASRCTAADGPVDEYMLPFEEEEIG  
 QHPSLEDMQEVVHKKRPVLRDYWQKHAGMAMLCETIEECWDHDAEARLSAGCVGERITQMQRLTNIIT  
 TEDIVTVVMTNVDFFPKESL

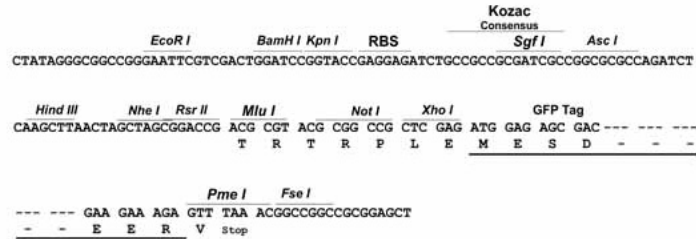
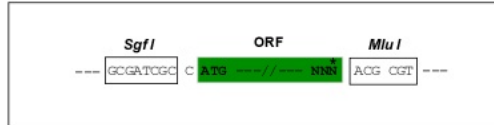
**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

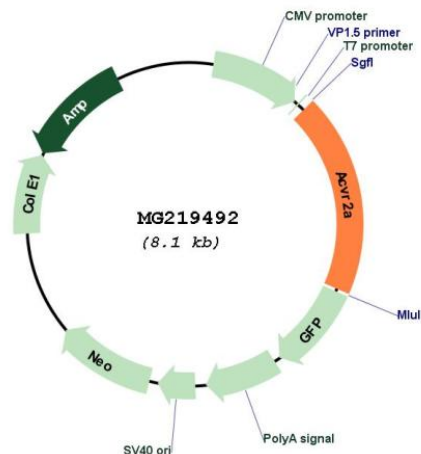
Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_007396

ORF Size: 1539 bp

<b>OTI Disclaimer:</b>	<p>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:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	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>RefSeq:</b>	<a href="#">NM_007396.4</a> , <a href="#">NP_031422.3</a>
<b>RefSeq Size:</b>	5681 bp
<b>RefSeq ORF:</b>	1542 bp
<b>Locus ID:</b>	11480
<b>UniProt ID:</b>	<a href="#">P27038</a>
<b>Cytogenetics:</b>	2 28.38 cM
<b>Gene Summary:</b>	<p>On ligand binding, forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators. Receptor for activin A, activin B and inhibin A. Mediates induction of adipogenesis by GDF6 (PubMed:23527555).[UniProtKB/Swiss-Prot Function]</p>