

## Product datasheet for **MG219865**

### Acmsd (NM\_001033041) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Acmsd (NM_001033041) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Acmsd
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG219865 representing NM_001033041 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**

ATGAAAATTGACATCCACTCATATTCTACCAAAGGAATGGCCCGATCTAGAAAAGAGTTTGGCTATG  
GAGGCTGGGTGCAGCTCCAACAGCAAGGCAAGGGAGAAGCAAAGATGATAAAAGATGGGAAGCTCTTCAG  
AGTGATCCAACAGAACTGCTGGGACCCAGAAGTTCGTATCAGAGAAATGAACCAGAAAGGAGTGACAGTC  
CAAGCTCTTCCACAGTTCCTGTCATGTTTAGCTACTGGGCCAAACCTAAGGATACTTTGGAGCTGTGCC  
AGTTTTTAAACAATGACCTAGCTGCCACGTTGCCAGATACCCTCGAAGTTTGTGGTTTGGGGACGTT  
GCCTATGCAAGCCCGGAGCTGGCCGTCGAGGAGATGGAGCGTTGTGTTAAGGCGCTAGGATTTCCAGGA  
ATCCAGATTGGCTCCACATCAACACATGGGACCTGAATGACCCGGAACCTCTTCCAATCTATGCTGCGG  
CCGAGAGGCTGAACTGTTCTCTGTTTCGTGCATCCCTGGGATATGCAGATGGATGGACGAATGCCAAATA  
CTGGCTGCCTTGGCTCGTAGGAATGCCATCGGAGACCACCATGGCCATTTGCTCCATGATCATGGGTGGG  
GTGTTTGAGAAGTTTCCCAAACCAAAGTGTGCTTCGCACACGGAGGTGGTGTCTTCCCCTTACCATAG  
GAAGAATTGCCCATGGATTCAACATGCGCCAGATCTCTGTGCCAGGACAATCCGTCGACCCAGAAA  
ATACCTTGGCTCCTTCTACACAGACTCCCTGGTTCACGATCCTCTGTCTCTCAAGCTATTGACAGATGTC  
ATAGGAAAGGATAAAGTCATGCTGGAACTGATTACCCCTTTCCTCTGGGCGAGCAGGAGCTGGGAAGC  
TGATAGAGTCCATGGCAGAGTTTGATGAAGAAACAAAGGATAAACTTACAGCTGGCAATGCCTTGGCTTT  
TTTGGTCTTGAGAGAAAATTTTGA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG219865 representing NM\_001033041  
 Red=Cloning site Green=Tags(s)

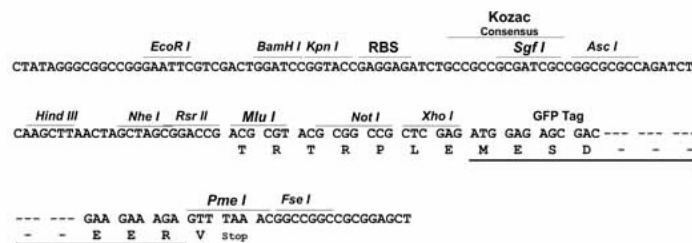
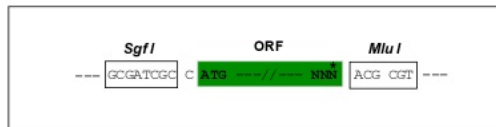
MKIDITHILPKIEWPDLEKRFYGGWVQLQQQKGEAKMIKDGKLF RVIQQNCWDPEVRIREM NQKGVTV  
 QALSTVPVMFSYWAKPKDTLELCQFLNNDLAATVARYPRRFVGLGTLPMQAPELAVEEMERCVKALGFPG  
 IQIGSHINTWDLNDPELFP IYAAAERLNC SLFVHPWDMQMDGRMAKYWLPWL VGMPSETTMAICSMIMGG  
 VFEKFKLKVCF AHGGGAFPFTIGRIAHGFNM RPDLC AQDNPSDPRKYLGSFYTDSL VHDPLSLKLLTDV  
 IGKDKVMLGTDYFPFLGEQEPGLIESMAEFDEETKDKLTAGNALAFLGLERKLF E

TRTRPLE - GFP Tag - V

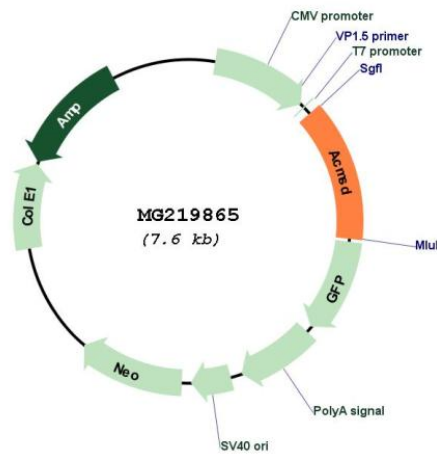
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_001033041

ORF Size: 1008 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>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<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>	<p><a href="#">NM_001033041.2</a>, <a href="#">NP_001028213.1</a></p>
<b>RefSeq Size:</b>	<p>2303 bp</p>
<b>RefSeq ORF:</b>	<p>1011 bp</p>
<b>Locus ID:</b>	<p>266645</p>
<b>UniProt ID:</b>	<p><a href="#">Q8R519</a></p>
<b>Cytogenetics:</b>	<p>1 E3</p>
<b>Gene Summary:</b>	<p>Converts alpha-amino-beta-carboxymuconate-epsilon-semialdehyde (ACMS) to alpha-aminomuconate semialdehyde (AMS). ACMS can be converted non-enzymatically to quinolate (QA), a key precursor of NAD, and a potent endogenous excitotoxin of neuronal cells which is implicated in the pathogenesis of various neurodegenerative disorders. In the presence of ACMSD, ACMS is converted to AMS, a benign catabolite. ACMSD ultimately controls the metabolic fate of tryptophan catabolism along the kynurenine pathway.[UniProtKB/Swiss-Prot Function]</p>