

Product datasheet for **RG229989**

AMACR (NM_001167595) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AMACR (NM_001167595) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	AMACR
Synonyms:	AMACRD; CBAS4; P504S; RACE; RM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG229989 representing NM_001167595 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCACTGCAGGGCATCTCGGTCGTGGAGCTGTCCGGCCTGGCCCCGGGCCGTTCTGTGCTATGGTCC
TGGCTGACTTCGGGGCGCGTGTGGTACGCGTGGACCGGCCGGCTCCCGCTACGACGTGAGCCGCTTGGG
CCGGGGCAAGCGCTCGTAGTGTGGACCTGAAGCAGCCGGGGAGCCCGCTGCTGCGGCGTCTGTGC
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GAGCAATAGAACCCAGTCTACGAGCTGCTGATCAAAGGACTTGGACTAAAGTCTGATGAACCTCCCAA
TCAGATGAGCATGGATGATTGGCCAGAAATGAAGAAGAAGTTGCAGATGATTTGCAGAGAAGACGAAG
GCAGATGGTGTCAAATCTTTGACGGCACAGATGCCTGTGTGACTCCGGTCTGACTTTTGAGGAGGTTG
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TGCACCTCTGCTGTTAAACACCCAGCCATCCCTTCTTTCAAAGGGATCCTTTTATAGGAGAACACACT
GAGGAGATACTTGAAGAATTTGGATTACGCCGGAAGAGATTTATCAGCTTAACTCAGATAAAATCATTTG
AAAGTAATAAGGCTGGTAGCAAGTTCTGGATCTTATACCAACACACAGCAACATCCAGAAA

AGCGGACCGACGCTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG229989 representing NM_001167595
 Red=Cloning site Green=Tags(s)

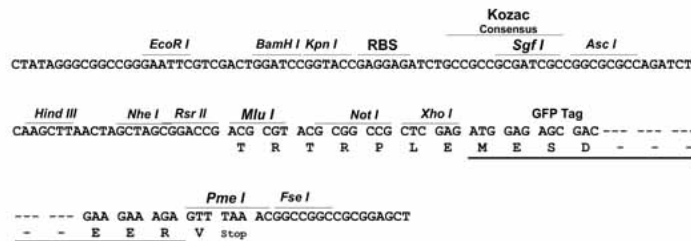
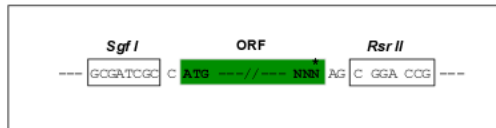
MALQGISVVVLSGLAPGPFAMVLADFGARVVRVDRPGSRYDVSRLGRGKRSVLDLKQPRGAAVLRRLC
 KRSDVLLLEPFRRGVMEKLQLGPEILQRENPLIYARLSGFGQSGSFCRLAGHDINYLLASGVLSKIGRSG
 ENPYAPLNLLADFAGGGLMCALGIIMALFDRTRTGKQVIDANMVEGTAYLSSFLLWKTQKLSLWEAPRGQ
 NMLDGGAPFYTTYRTADGEFMAVGAIEPQFYELLIKGLGLKSDLPNQMSMDDWPEMKKKFADVF AEKTK
 AEWCQIFDGTDACVTPVLTFFEEVVHHDHNKERGSFITSEEQDVSPRPAPLLLNTPAIPSFKRDPF IGEHT
 EEILEEFGFSREEIYQLNSDKIIESNKAGSKFWILYPTHSNIQK

SGPTRRRLE - GFP Tag - V

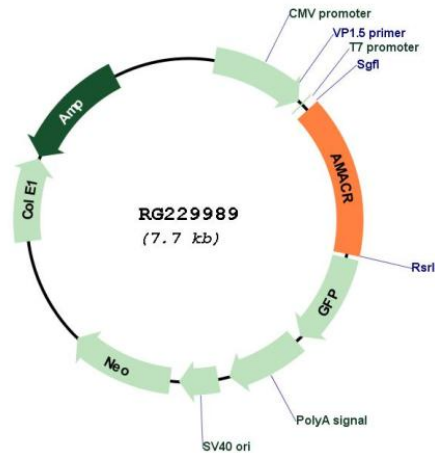
Restriction Sites: SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001167595

ORF Size:	1182 bp
OTI Disclaimer:	<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 custsupport@origene.com 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. More info</p>
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:	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:	<ol style="list-style-type: none"> 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_001167595.2
RefSeq Size:	2603 bp
RefSeq ORF:	1185 bp
Locus ID:	23600
UniProt ID:	Q9UHK6
Cytogenetics:	5p13.2
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Primary bile acid biosynthesis

Gene Summary:

This gene encodes a racemase. The encoded enzyme interconverts pristanoyl-CoA and C27-bile acylCoAs between their (R)- and (S)-stereoisomers. The conversion to the (S)-stereoisomers is necessary for degradation of these substrates by peroxisomal beta-oxidation. Encoded proteins from this locus localize to both mitochondria and peroxisomes. Mutations in this gene may be associated with adult-onset sensorimotor neuropathy, pigmentary retinopathy, and adrenomyeloneuropathy due to defects in bile acid synthesis. Alternatively spliced transcript variants have been described. Read-through transcription also exists between this gene and the upstream neighboring C1QTNF3 (C1q and tumor necrosis factor related protein 3) gene. [provided by RefSeq, Mar 2011]