

## Product datasheet for RC229989

### AMACR (NM\_001167595) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	AMACR (NM_001167595) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AMACR
Synonyms:	AMACRD; CBAS4; P504S; RACE; RM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC229989 representing NM_001167595 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCACTGCAGGGCATCTCGGTCGTGGAGCTGTCCGGCCTGGCCCCGGGCCGTTCTGTGCTATGGTCC  
TGGCTGACTTCGGGGCGCGTGTGGTACGCGTGGACCGGCCGGCTCCCGCTACGACGTGAGCCGCTTGGG  
CCGGGGCAAGCGCTCGTAGTGTGGACCTGAAGCAGCCGGGGAGCCCGCTGCTGCGGCGTCTGTGC  
AAGCGGTCGGATGTGCTGCTGGAGCCCTCCGCCGGGTGTATGGAGAACTCCAGCTGGGCCAGAGA  
TTCTGCAGCGGAAAATCCAAGGCTTATTTATGCCAGGCTGAGTGGATTTGGCCAGTCAGGAAGCTTCTG  
CCGTTAGCTGGCCACGATATCAACTATTTGGCTTTGTCAGGTGTTCTCTCAAAAATTGGCAGAAGTGGT  
GAGAATCCGATGCCCGCTGAATCTCCTGGCTGACTTTGCTGGTGGTGGCCTTATGTGTCACTGGGCA  
TTATAATGGCTCTTTTGACCGCACACGCACTGGCAAGGGTCAGGTCATTGATGCAAAATGGTGGAAAGG  
AACAGCATATTTAAGTCTTTTCTGTGGAAAACAGAAATTGAGTCTGTGGGAAGCACCTCGAGGACAG  
AACATGTTGGATGGTGGAGCACCTTTCTATACGACTTACAGGACAGCAGATGGGAATTCATGGCTGTTG  
GAGCAATAGAACCCAGTCTACGAGCTGCTGATCAAAGGACTTGGACTAAAGTCTGATGAACCTCCCAA  
TCAGATGAGCATGGATGATTGGCCAGAAATGAAGAAGAAGTTGCAGATGATTTGCAGAGAAGACGAAG  
GCAGATGGTGTCAAATCTTTGACGGCACAGATGCCTGTGTGACTCCGGTCTGACTTTTGGAGGTTG  
TTCATCATGATCACAAACAGGAACGGGGCTCGTTTATCACCAGTGAGGAGCAGGACGTGAGCCCCGCC  
TGCACCTCTGCTGTTAAACACCCAGCCATCCCTTCTTTCAAAGGGATCCTTTTCATAGGAGAACACACT  
GAGGAGATACTTGAAGAATTTGGATTACGCCGGAAGAGATTTATCAGCTTAACTCAGATAAAATCATTTG  
AAAGTAATAAGGCTGGTAGCAAGTTCTGGATCTTATACCAACACACAGCAACATCCAGAAA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC229989 representing NM\_001167595  
Red=Cloning site Green=Tags(s)

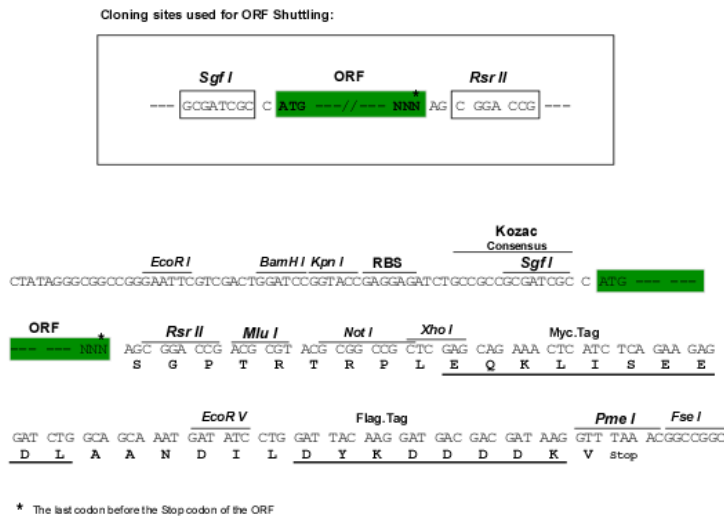
MALQGISVVELSGLAPGPFAMVLADFGARVVRVDRPGSRYDVSRLGRGKRSVLDLKQPRGAAVLRRLC  
 KRSDVLLLEPFRRGVMEKLQLGPEILQRENPRLIYARLSGFGQSGSFCRLAGHDINYALSGVLSKIGRSG  
 ENPYAPLNLLADFAAGGLMCALGIIMALFDRTRTGKQVIDANMVEGTAYLSSFLWKTQKLSLWEAPRGQ  
 NMLDGGAPFYTTYRTADGEFMAVGAIEPQFYELLIKGLGLKSDLPNQMSDDWPPEMKKKFADVF AEKTK  
 AEWCQIFDGTDACVTPVLTFFEEVVHHDHNKERGSFITSEEQDVSPRPAPLLLNTPAIPSFKRDPF IGEHT  
 EEILEEFGFSREEIYQLNSDKIIESNKAGSKFWILYPTHSNIQK

SGPTRTRRLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8056\\_h02.zip](https://cdn.origene.com/chromatograms/mk8056_h02.zip)

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**



**ACCN:** NM\_001167595

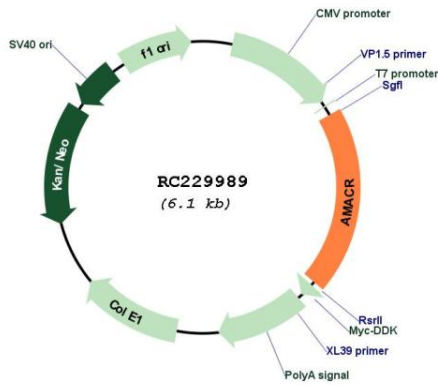
**ORF Size:** 1182 bp

**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.

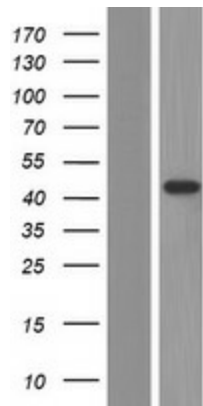
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in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

<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_001167595.2</a>
<b>RefSeq ORF:</b>	1185 bp
<b>Locus ID:</b>	23600
<b>UniProt ID:</b>	<a href="#">Q9UHK6</a>
<b>Cytogenetics:</b>	5p13.2
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Metabolic pathways, Primary bile acid biosynthesis
<b>MW:</b>	44.3 kDa
<b>Gene Summary:</b>	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]

Product images:



Circular map for RC229989



Western blot validation of overexpression lysate (Cat# [LY432989]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC229989 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).