

Product datasheet for **RG213437**

AMACR (NM_014324) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AMACR (NM_014324) 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:	>RG213437 representing NM_014324 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCACTGCAGGGCATCTCGGTCGTGGAGCTGTCCGGCCTGGCCCCGGGCCGTTCTGTGCTATGGTCC
TGGCTGACTTCGGGGCGCGTGTGGTACGCGTGGACCGGCCGGCTCCCGCTACGACGTGAGCCGCTTGGG
CCGGGGCAAGCGCTCGTAGTGTGGACCTGAAGCAGCCGCGGGAGCCCGCTGCTGCGGCGTCTGTGC
AAGCGGTCGGATGTGCTGCTGGAGCCCTCCGCCGCGGTGTATGGAGAACTCCAGCTGGGCCAGAGA
TTCTGCAGCGGAAAATCCAAGGCTTTATGCCAGGCTGAGTGGATTTGGCCAGTCAGGAAGCTTCTG
CCGTTAGCTGGCCACGATATCAACTATTTGGCTTTGTCAGGTGTTCTCTCAAAAATGGCAGAAGTGGT
GAGAATCCGTATGCCCGCTGAATCTCCTGGCTGACTTTGCTGGTGGTGGCCTTATGTGTCACTGGGCA
TTATAATGGCTCTTTTGACCGCACACGCACTGGCAAGGGTCAGGTCAATTGATGCAAAATGGTGGAAAGG
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AACATGTTGGATGGTGGAGCACCTTTCTACGACTTACAGGACAGCAGATGGGGAATTCATGGCTGTTG
GAGCAATAGAACCCAGTCTACGAGCTGCTGATCAAAGGACTTGGACTAAAGTCTGATGAACCTCCCAA
TCAGATGAGCATGGATGATTGGCCAGAAATGAAGAAGAAGTTGCAGATGATTTGCAGAGAAGACGAAG
GCAGATGGTGTCAAATCTTTGACGGCACAGATGCCTGTGTGACTCCGGTCTGACTTTTGGAGGTTG
TTCATCATGATCACAACAAGGAACGGGGCTCGTTTATCACCAGTGAGGAGCAGGACGTGAGCCCCGCC
TGACCTCTGCTGTTAAACACCCAGCCATCCCTTCTTTCAAAGGGATCCTTTTCATAGGAGAACAACACT
GAGGAGATACTTGAAGAATTTGGATTCAGCCGCGAAGAGATTTATCAGCTTAACTCAGATAAAATCATTG
AAAGTAATAAGGTAAGCTAGTCTC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG213437 representing NM_014324
 Red=Cloning site Green=Tags(s)

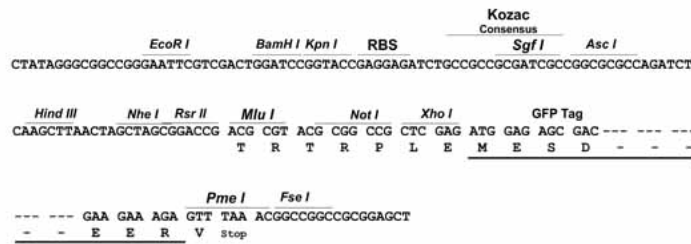
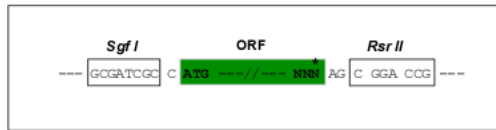
MALQGISVVVLSGLAPGPFAMVLADFGARVVRVDRPGSRYDVSRLGRGKRSVLVDLKQPRGAAVLRRLC
 KRSDVLLLEPFRRGVMEKLQLGPEILQRENPRLIYARLSGFGQSGSFCRLAGHDINYALSGVLSKIGRSG
 ENPYAPLNLLADFAGGGLMCALGIIMALFDRTRTGKQVIDANMVEGTAYLSSFLLWKTQKLSLWEAPRGQ
 NMLDGGAPFYTTYRTADGEFMAVGAIEPQFYELLIKGLGLKSDLPNQMSMDDWPPEMCKKFADVF AEKTK
 AEWCQIFDGTADCVPTVLTFFEEVHHDHNKERGSFITSEEQDVSPRPAPLLLNTPAIPSFKRDPFI GEHT
 EEILEEFGFSREEIYQLNSDKIIESNKVKASL

SGPTRRRLE - GFP Tag - V

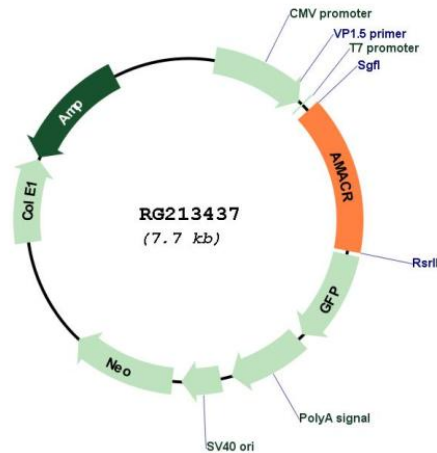
Restriction Sites: SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_014324

ORF Size:	1146 bp
OTI Disclaimer:	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.
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_014324.6
RefSeq Size:	2534 bp
RefSeq ORF:	1149 bp
Locus ID:	23600
UniProt ID:	Q9UHK6
Cytogenetics:	5p13.2
Domains:	CAIB-BAIF
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]