

Product datasheet for **RG201163**

AMACR (NM_203382) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: AMACR (NM_203382) 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: >RG201163 representing NM_203382
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCACTGCAGGGCATCTCGGTCATGGAGCTGTCCGGCCTGGCCCCGGGCCCGTTCTGTGCTATGGTCC
TGGCTGACTTCGGGGCGCGTGTGGTACGCGTGGACCGGCCGGCTCCCGCTACGACGTGAGCCGCTTGGG
CCGGGGCAAGCGCTCGTAGTGTGGACCTGAAGCAGCCGGGGAGCCCGCTGCTGCGGCGTCTGTGC
AAGCGGTCGGATGTGCTGCTGGAGCCCTCCGCCGCGGTGTATGGAGAACTCCAGCTGGGCCAGAGA
TTCTGCAGCGGAAAATCCAAGGCTTATTTATGCCAGGCTGAGTGGATTTGGCCAGTCAGGAAGCTTCTG
CCGTTAGCTGGCCACGATATCAACTATTTGGCTTTGTCAGGTGGAAGGAACAGCATATTTAAGTTCTTT
TCTGTGAAAACTCAGAAATCGAGTCTGTGGGAAGCACCTCGAGGACAGAACATGTTGGATGGTGGAGCA
CCTTTCTATACGACTTACAGGACAGCAGATGGGAATTCATGGCTGTTGGAGCAATAGAACCCAGTTCT
ACGAGCTGCTGATCAAAGGACTTGGACTAAAGTC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG201163 representing NM_203382
 Red=Cloning site Green=Tags(s)

MALQGISVMELSGLAPGPFAMVLADFGARVVRVDRPGSRYDVSRLGRGKRSLVLDLKQPRGAAVLRRLC
KRSDVLLLEPFRRGVMEKLQLGPEILQRENPRLIYARLSGFGQSGSFCRLAGHDINYLALSGGRNSIFKFF
SVENSEIESVGSTSRTEHVGGWSTFLYDLQDSRWGIHGCSNRTPVLRADQRTWTKV

SGP**TRRRLE** - GFP Tag - V

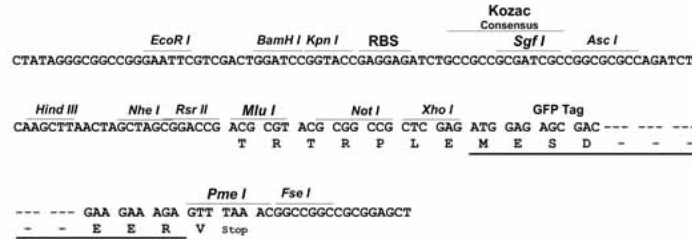
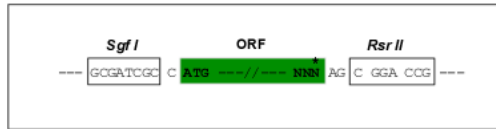
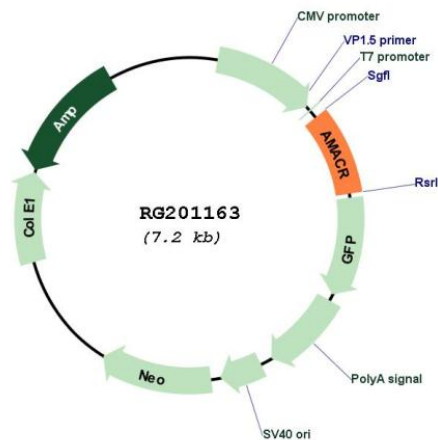
Restriction Sites: Sgfl-RsrII



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Cloning Scheme:

Cloning sites used for ORF Shuttling:


Plasmid Map:

ACCN: NM_203382

ORF Size: 594 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:

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_203382.1](#), [NP_976316.1](#)

RefSeq Size: 2373 bp

RefSeq ORF: 597 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]