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Product datasheet for RG232495

Arginase 1 (ARG1) (NM_001244438) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arginase 1 (ARG1) (NM_001244438) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ARG1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG232495 representing NM_001244438
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGCGCCAAGTCCAGAACCATAGGGATTATTGGAGCTCCTTTCTCAAAGGGACAGCCACGAGGAGGGG
TGGAAGAAGGCCCTACAGTATTGAGAAAGGCTGGTCTGCTTGAGAAACTTAAAGAACAAGTAACTCAAAA
CTTTTTAATTTTAGAGTGTGATGTGAAGGATTATGGGGACCTGCCCTTTGCTGACATCCCTAATGACAGT
CCCTTTCAAATTGTGAAGAATCCAAGGTCTGTGGGAAAAGCAAGCGAGCAGCTGGCTGGCAAGGTGGCAG
AAGTCAAGAAGAACGGAAGAATCAGCCTGGTGCTGGGCGGAGACCACAGTTTGGCAATTGGAAGCATCTC
TGGCCATGCCAGGGTCCACCCTGATCTTGGAGTCATCTGGGTGGATGCTCACACTGATATCAACACTCCA
CTGACAACCACAAGTGGAAACTTGCATGGACAACCTGTATCTTTCCTCCTGAAGGAACTAAAAGGAAAGA
TTCCCGATGTGCCAGGATTCTCCTGGGTGACTCCCTGTATATCTGCCAAGGATATTGTGTATATTGGCTT
GAGAGACGTGGACCCTGGGGAACACTACATTTTGAAAACTCTAGGCATTAAATACTTTTCAATGACTGAA
GTGGACAGACTAGGAATTGGCAAGGTGATGGAAGAAACACTCAGCTATCTACTAGGAAGAAAGAAAAGGC
CAATTCATCTAAGTTTTGATGTTGACGGACTGGACCCATCTTTCACACCAGCTACTGGCACACCAGTCGT
GGGAGGTCTGACATACAGAGAAGGTCTCTACATCACAGAAGAAATCTACAAAACAGGGCTACTCTCAGGA
TTAGATATAATGGAAGTGAACCCATCCCTGGGGAAGACACCAGAAGAAGTAACTCGAACAGTGAACACAG
CAGTTGCAATAACCTTGGCTTGTTTCGGACTTGCTCGGGAGGGTAATCACAAGCCTATTGACTACCTTAA
CCCACCTAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

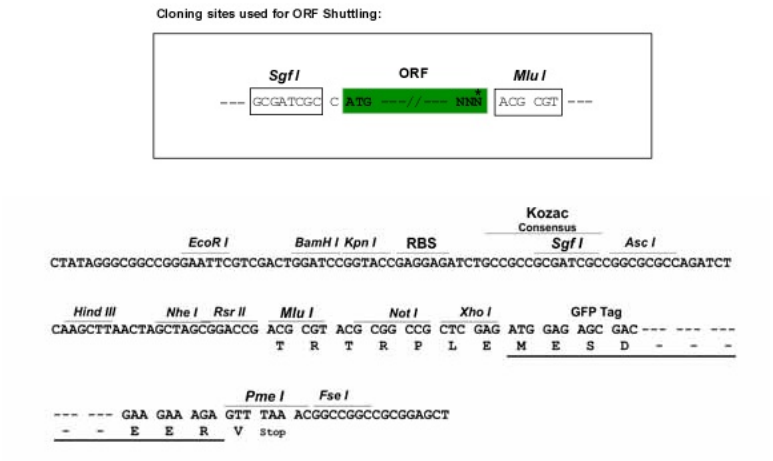
>RG232495 representing NM_001244438
Red=Cloning site Green=Tags(s)

MSAKSRTIGIIGAPFSKGQPRGGVEEGPTVLRKAGLLEKLKEQVTQNFLILECDVKDYGDLPFADIPNDS
PFQIVKNPRSVGKASEQLAGKVAEVKKNGRISLVLGGDHSLAIGSISGHARVHPDLGVIWVDAHTDINTP
LTTTSGNLHGQPVSFLLKELKGKIPDVPGFSWVTPCISAKDIVYIGLRDVDPGEHYILKTLGIKYFSMTE
VDRLGIGKVMEETLSYLLGRKKRPIHLSFDVDGLDPSFTPATGTPVVGGLTYREGLYITEEIYKTGLLSG
LDIMEVNPSLGKTPEEVTRTVNTAVAITLACFGLAREGNHKPIDYLNPPK

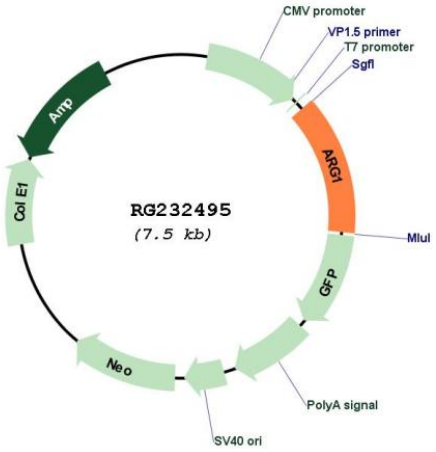
TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001244438

ORF Size: 990 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 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
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_001244438.2
RefSeq Size:	1499 bp
RefSeq ORF:	993 bp
Locus ID:	383
UniProt ID:	P05089
Cytogenetics:	6q23.2
Protein Families:	Druggable Genome
Protein Pathways:	Arginine and proline metabolism, Metabolic pathways
Gene Summary:	Arginase catalyzes the hydrolysis of arginine to ornithine and urea. At least two isoforms of mammalian arginase exist (types I and II) which differ in their tissue distribution, subcellular localization, immunologic crossreactivity and physiologic function. The type I isoform encoded by this gene, is a cytosolic enzyme and expressed predominantly in the liver as a component of the urea cycle. Inherited deficiency of this enzyme results in argininemia, an autosomal recessive disorder characterized by hyperammonemia. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2011]