

Product datasheet for **RG206756**

ARG2 (NM_001172) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARG2 (NM_001172) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ARG2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG206756 representing NM_001172 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCCCTAAGGGGCAGCCTCTCGCGTCTCCTCCAGACGCGAGTGCATTCCATCCTGAAGAAATCCGTCC
ACTCCGTGGCTGTGATAGGAGCCCCGTTCTCACAAGGGCAGAAAAGAAAAGGAGTGGAGCATGGTCCC
TGCCATAAGAGAAGCTGGCTTGATGAAAAGGCTCTCCAGTTTGGGCTGCCACCTAAAAGACTTTGGAGAT
TTGAGTTTTACTCCAGTCCCAAAGATGATCTCTACAACAACCTGATAGTGAATCCACGCTCAGTGGGTC
TTGCCAACGAGAACTGGCTGAGGTGGTTAGCAGAGCTGTGTGATGGCTACAGCTGTGTGACACTGGG
AGGAGACCACAGCCTGGCAATCGGTACCATTAGTGGCCATGCCGACACTGCCAGACCTTTGTGTGTC
TGGTTGATGCCCATGCTGACATCAACACACCCCTTACCACTTCATCAGGAAATCTCCATGGACAGCCAG
TTTTATTCTCCTCAGAGAACTACAGGATAAGGTACCACAACCTCCAGGATTTTCTGGATCAAACCTTG
TATCTCTTCTGCAAGTATTGTGTATATTGGTCTGAGAGACGTGGACCCTCCTGAACATTTTATTTAAAG
AACTATGATATCCAGTATTTTCCATGAGAGATATTGATCGACTTGGTATCCAGAAGGTCATGGAACGAA
CATTTGATCTGCTGATTGGCAAGAGACAAAGACCAATCCATTTGAGTTTTGATATTGATGCATTTGACCC
TACTGGCTCCAGCCACAGGAACTCCTGTTGTCGGGGGACTAACCTATCGAGAAGGCATGTATATTGCT
GAGGAAATACACAATACAGGGTTGCTATCAGCACTGGATCTTGTGAAGTCAATCCTCAGTTGGCCACCT
CAGAGGAAGAGGCGAAGACTACAGCTAACCTGGCAGTAGATGTGATTGCTTCAAGCTTTGTCAGACAAG
AGAAGGAGGGCATATTGTCTATGACCAACTTCTACTCCAGTTCACCAGATGAATCAGAAAATCAAGCA
CGTGTGAGAATT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG206756 representing NM_001172
Red=Cloning site Green=Tags(s)

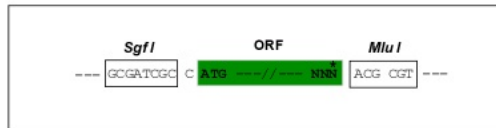
MSLRGSLRLLQTRVHSILKKS VHSVAVIGAPFSQGQKRKGVEHGPAAI REAGLMKRLSSLGCHLKDFGD
 LSFTVPVKDDL YNNLIVNPRSVGLANQELAEVVSRAVSDGYSCVTLGGDHSLAIGTISGHARHCPDLCVV
 WYDAHADINTPL TTSSGNLHGQPVSFLLRELQDKVPQLPGF SWIKPCISSASIVYIGLRDVPPEHFILK
 NYDIQYFSMRDIDRLGIQKVMERTFDLLIGKRQRPIHLSFDIDAFDPTLAPATGTPVVGGGLTYREGMYIA
 EEIHNTGLLSALDLVEVNPQLATSEEEAKTTANLAVDVIASSFGQTREGGHIVYDQLPTPSSPDESENQA
 RVRI

TRTRPLE - GFP Tag - V

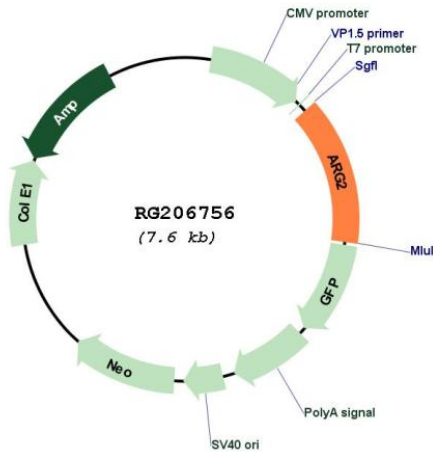
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001172

ORF Size:	1062 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_001172.4
RefSeq Size:	1981 bp
RefSeq ORF:	1065 bp
Locus ID:	384
UniProt ID:	P78540
Cytogenetics:	14q24.1
Domains:	arginase
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 exists (types I and II) which differ in their tissue distribution, subcellular localization, immunologic crossreactivity and physiologic function. The type II isoform encoded by this gene, is located in the mitochondria and expressed in extra-hepatic tissues, especially kidney. The physiologic role of this isoform is poorly understood; it is thought to play a role in nitric oxide and polyamine metabolism. Transcript variants of the type II gene resulting from the use of alternative polyadenylation sites have been described. [provided by RefSeq, Jul 2008]