

Product datasheet for **RC206756**

ARG2 (NM_001172) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARG2 (NM_001172) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ARG2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206756 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCCCTAAGGGGCAGCCTCTCGCGTCTCCTCCAGACGCGAGTGCATTCCATCCTGAAGAAATCCGTCC
ACTCCGTGGCTGTGATAGGAGCCCCGTTCTCACAAGGGCAGAAAAGAAAAGGAGTGGAGCATGGTCCCGC
TGCCATAAGAGAAGCTGGCTTGATGAAAAGGCTCTCCAGTTTGGGCTGCCACCTAAAAGACTTTGGAGAT
TTGAGTTTTACTCCAGTCCCAAAGATGATCTCTACAACAACCTGATAGTGAATCCACGCTCAGTGGGTC
TTGCCAACAGGAACCTGGCTGAGGTGGTTAGCAGAGCTGTGTGATGGCTACAGCTGTGTGACACTGGG
AGGAGACCACAGCCTGGCAATCGGTACCATTAGTGGCCATGCCCGACACTGCCAGACCTTTGTGTGTC
TGGGTTGATGCCCATGCTGACATCAACACACCCCTTACCACTTCATCAGGAAATCTCCATGGACAGCCAG
TTTTATTCTCCTCAGAGAACTACAGGATAAGGTACCACAACCTCCAGGATTTTCTGGATCAAACCTTG
TATCTCTTCTGCAAGTATTGTGTATATTGGTCTGAGAGACGTGGACCCTCCTGAACATTTTATTTAAAG
AACTATGATATCCAGTATTTTCCATGAGAGATATTGATCGACTTGGTATCCAGAAGGTCATGGAACGAA
CATTTGATCTGCTGATTGGCAAGAGACAAAGACCAATCCATTTGAGTTTTGATATTGATGCATTTGACCC
TACTGGCTCCAGCCACAGGAACCTCTGTTGTCGGGGGACTAACCTATCGAGAAGGCATGTATATTGCT
GAGGAAATACACAATACAGGGTTGCTATCAGCACTGGATCTTGTGAAGTCAATCCTCAGTTGGCCACCT
CAGAGGAAGAGGCGAAGACTACAGCTAACCTGGCAGTAGATGTGATTGCTTCAAGCTTTGCTCAGACAAG
AGAAGGAGGGCATATTGTCTATGACCAACTTCTACTCCAGTTCACCAGATGAATCAGAAAATCAAGCA
CGTGTGAGAATT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC206756 protein sequence
Red=Cloning site Green=Tags(s)

MSLRGSLRLLQTRVHSILKKSVHSVAVIGAPFSQGQKRKGVEHGPAAIREAGLMKRLSSLGCHLKDFGD
 LSFTPVPKDDLNNLIVNPRSVGLANQELAEVVSRAVSDGYSCVTLGGDHSLAIGTISGHARHCPDLCVV
 WYDAHADINTPLTTSSGNLHGQPVSFLLRELQDKVPQLPGFSWIKPCISSASIVYIGLRDVPPEHFILK
 NYDIQYFSMRDIDRLGIQKVMERTFDLLIGKRQRP IHL SFDIDAFDPTLAPATGTPVVGGLTYREGMYIA
 EEIHNTGLLSALDLVEVNPQLATSEEEAKTTANLAVDVIASSFGQTRREGGHIVYDQLPTPSSPDESENQA
 RVRI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6231_e06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

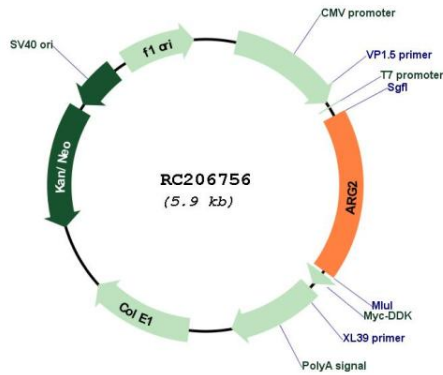
ACCN: NM_001172

ORF Size: 1062 bp

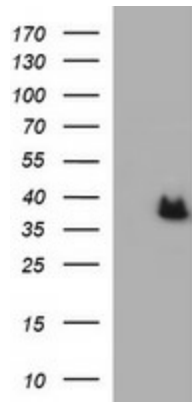
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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](#)

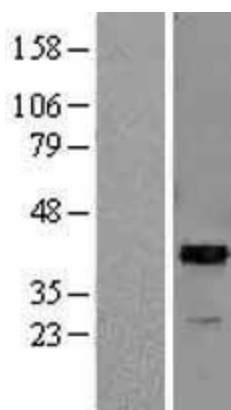
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
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
MW:	38.6 kDa
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]

Product images:


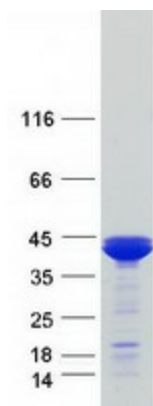
Circular map for RC206756



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ARG2 (Cat# RC206756, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ARG2 (Cat# [TA506751]). Positive lysates [LY420091] (100ug) and [LC420091] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY420091]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206756 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ARG2 protein (Cat# [TP306756]). The protein was produced from HEK293T cells transfected with ARG2 cDNA clone (Cat# RC206756) using MegaTran 2.0 (Cat# [TT210002]).