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Product datasheet for SC125302

ARG2 (NM_001172) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARG2 (NM_001172) Human Untagged Clone
Tag:	Tag Free
Symbol:	ARG2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC125302 sequence for NM_001172 edited (data generated by NextGen Sequencing)

ATGTCCCTAAGGGGCAGCCTCTCGCGTCTCCTCCAGACGCGAGTGCATTCCATCCTGAAG
AAATCCGTCCACTCCGTGGCTGTGATAGGAGCCCCGTTCTCACAAGGGCAGAAAAGAAAA
GGAGTGGAGCATGGTCCCGCTGCCATAAGAGAAGCTGGCTTGATGAAAAGGCTCTCCAGT
TTGGGCTGCCACCTAAAAGACTTTGGAGATTTGAGTTTTACTCCAGTCCCCAAAGATGAT
CTCTACAACAACCTGATAGTGAATCCACGCTCAGTGGGTCTTGCCAACCAGGAACTGGCT
GAGGTGGTTAGCAGAGCTGTGTCAGATGGCTACAGCTGTGTCACACTGGGAGGAGACCAC
AGCCTGGCAATCGGTACCATTAGTGGCCATGCCCGACACTGCCCAGACCTTTGTGTTGTC
TGGGTTGATGCCCATGCTGACATCAACACACCCCTTACCACTTCATCAGGAAATCTCCAT
GGACAGCCAGTTTCATTTCTCCTCAGAGAACTACAGGATAAGGTACCACAACTCCCAGGA
TTTTCCTGGATCAAACCTTGTATCTCTTCTGCAAGTATTGTGTATATTGGTCTGAGAGAC
GTGGACCCTCCTGAACATTTTATTTTAAAGAACTATGATATCCAGTATTTTTCCATGAGA
GATATTGATCGACTTGGTATCCAGAAGGTCATGGAACGAACATTTGATCTGCTGATTGGC
AAGAGACAAAGACCAATCCATTTGAGTTTTGATATTGATGCATTTGACCCTACACTGGCT
CCAGCCACAGGAACTCCTGTTGTCGGGGGACTAACCTATCGAGAAGGCATGTATATTGCT
GAGGAAATACACAATACAGGGTTGCTATCAGCACTGGATCTTGTTGAAGTCAATCCTCAG
TTGGCCACCTCAGAGGAAGAGGCGAAGACTACAGCTAACCTGGCAGTAGATGTGATTGCT
TCAAGCTTTGGTCAGACAAGAGAAGGAGGGCATATTGTCTATGACCAACTTCCTACTCCC
AGTTCACCAGATGAATCAGAAAATCAAGCACGTGTGAGAATTTAG

Clone variation with respect to NM_001172.3

View online »

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001172 unedited
GAGGTTCAGCATTTGTNATACGACTCACTATAGGGCGGCCGCNGATTCCCGGGCTCACGG
GGCGGGCGGACGCTGGCGCGGGTAGGTAAGAGCAGCGGCGGGCGGTGGCGCTCACTCCCG
GCTTCCAACCGCGCGGAGCCTCTGCCTTGGAGATTCTCAGTGCTGCGGATCATGTCCCTA
AGGGGCAGCCTCTCGCGTCTCCTCCAGACGCGAGTGCATTCCATCCTGAAGAAATCCGTC
CACTCCGTGGCTGTGATAGGAGCCCCGTTCTCACAAGGGCAGANAAGAAAAGGAGTGGAG
CATGGTCCCGCTGCCATAAGAGAAGCTGGCTTGATGAAAAGGCTCTCCAGTTTGGGCTGC
CACCTAAAAGACTTTGGAGATTTGAGTTTTACTCCAGTCCCCAAAGATGATCTCTACAAC
AACCTGATAGTGAATCCACGCTCAGTGGGTCTTGCCAACCAGGAACTGGCTGAGGTGGTT
AGCAGAGCTGTGTCAGATGGCTACAGCTGTGTCACACTGGGAGGAGACCACAGCCTGGCA
ATCGGTACCATTAGTGGCCATGCCCGACACTGCCCAGACCTTTGTGTTGTCTGGGTTGAT
GCCCATGCTGACATCAACACACCCCCTTACCACGGCATCAGGAAATCTCCATGGACAGCC
AGTTTCATTTCTCCTCAGAGAACTACAGGGTAAGGTACCACAACTCCCAGGATTTTCCTG
GATCAAACCCTGTATCTCTTCTGCAAGTATTGTGTATATTGGTCTGAAAGACGTGGACCC
TCCTGGAACTTTTATTTTAAAGAACTTGAATCCCGTATTTTTCCTGAAAGATATTGATCG
ACTGGGTTTCCAAAGGTCCATGGGACGAAATTTGATCTGCTGGTTGCCAAGAAAAAAAAA
CCAATCCCTTGGG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001172 unedited
AATTGCATTTTAGCTTTGGTTTTTATGTCTCATTTAACATTTATGTGAGGTAGACAGTGT
TATCCCTAAGTGACAGCTAAAGAACCTTATGAGTACTTCCTGCTAAGTGGCTGTGTGATC
AAACATACAGCCTCAGAGTATCCAGCCGTGGTCCCAGGTCTAACCCCAAAATGTTTAGAA
GGAAGGTTATCCAAACTTCTGACTACTCCCCACTTTGCTTCTCTTTGTAGAGTGACAACC
AACAAGCTGCTGCTTTCCATTATCATCTTACTGGAGCTCGCCATCCTGGGAGGCCTGGTT
TACTACAAATTCTTTCGCAGCCATTGAACTTCTATAGGGAAGGGTTTGTGGACCAGAACT
TTGACACTTGTGAATGCATGATGTTAGGGATGTGGATAGAATAAGCATATTGCTGCTGTG
GGCTGACAGTTCAAGGATGCACTGTCTAGCCAGGCTGTGGGAGGAGGGAGGAAAGATGAA
AAACCACTTATATGTGAATGAACAACAGCAACTAGACCAGTATGATATACCAAGGTAATA
AATGCTGTTTATGACTTCTTTAATGTACATAGTACTGTTACATATTAAATACCCTGGGGA
CCGCCAAAAACCACATACCTTTACAGTAGTTCTTGGTCACCCAAATAGAGGGGAAACTTT
ACAATTGTAAGAATGCGGAAATGTTCTTATTAAAGCAGGATTTGCCCCAGAAAACAATTA
ATTTTTGATTTATCCCCTCAAGGCCTCTAAATTATGGAAAGCCTGTTGTGGAACAAGTTC
ACGGCAAAGTGGTCTCCTAAATTGCCCACCGTGCTTGGATTTTCTGATCATTTTGGGAAC
CGGGTATAGGAAGGTGGGAATAACAAAATACCCATCTTTTTTGTTTATGATGAACTTGGA
GCAATCCTTCGACCGCGCCAGTAAAGCTGATCGTATN

Restriction Sites: Please inquire

ACCN: NM_001172

Insert Size: 2100 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:	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_001172.3.
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_001172.3, NP_001163.1
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]