

Product datasheet for **SC114331**

Arginase 1 (ARG1) (NM_000045) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arginase 1 (ARG1) (NM_000045) Human Untagged Clone
Tag:	Tag Free
Symbol:	Arginase 1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC114331 sequence for NM_000045 edited (data generated by NextGen Sequencing)

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ATGAGCGCCAAGTCCAGAACCATAGGGATTATTGGAGCTCCTTTCTCAAAGGGACAGCCA
CGAGGAGGGGTGGAAGAAGGCCCTACAGTATTGAGAAAGGCTGGTCTGCTTGAGAAACTT
AAAGAACAAGAGTGTGATGTGAAGGATTATGGGGACCTGCCCTTTGCTGACATCCCTAAT
GACAGTCCCTTTCAAATTGTGAAGAATCCAAGGCTGTGGGAAAAGCAAGCGAGCAGCTG
GCTGGCAAGGTGGCAGAAGTCAAGAAGAACGGAAGAATCAGCCTGGTGTGGCGGAGAC
CACAGTTTGGCAATTGGAAGCATCTCTGGCCATGCCAGGGTCCACCCTGATCTTGGAGTC
ATCTGGGTGGATGCTCACACTGATATCAACTCCACTGACAACCACAAGTGGAACTTG
CATGGACAACCTGTATCTTTCTCCTGAAGGAATAAAAGGAAAAGATTCCCGATGTGCCA
GGATTCTCCTGGGTGACTCCCTGTATATCTGCCAAGGATATTGTGTATATTGGCTTGAGA
GACGTGGACCCTGGGGAACACTACATTTTGAAAACCTTAGGCATTAATACTTTTCAATG
ACTGAAGTGGACAGACTAGGAATTGGCAAGGTGATGGAAGAAACACTCAGCTATCTACTA
GGAAGAAAAGAAAAGGCCAATTCATCTAAGTTTTGATGTTGACGGACTGGACCCATCTTTC
ACACCAGTACTGGCACACCAGTCGTGGGAGGTCTGACATACAGAGAAGGTCTCTACATC
ACAGAAGAAATCTACAAAACAGGGCTACTCTCAGGATTAGATATAATGGAAGTGAACCCA
TCCCTGGGGAAGACACCAGAAGAAGTAACCTCGAACAGTGAACACAGCAGTTGCAATAACC
TTGGCTTGTTTCGGACTTGCTCGGGAGGGTAATCACAAGCCTATTGACTACCTTAACCCA
CCTAAGTAA
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Clone variation with respect to NM_000045.3



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000045 unedited
 TTCACATTTTGTAAATACGAACTCACTATAGGGCGGCCGGAATTCGCACGAGCTCAAGTG
 CAGCAAAGAGAAGTGTGTCAGAGCATGAGCGCCAAGTCCAGAACCATAGGGATTATTGGAGC
 TCCTTTCTCAAAGGGACAGCCACGAGGAGGGTGGGAAGAGGCCCTACAGTATTGAGAAA
 GGCTGGTCTGCTTGAGAACTTAAAGAACAAGAGTGTGATGTGAAGGATTATGGGGACCT
 GCCCTTTGCTGACATCCCTAATGACAGTCCCTTCAAATTGTGAAGAATCCAAGTCTGT
 GGGAAAGCAAGCGAGCAGCTGGCTGGCAAGGTGGCAGAAGTCAAGAAGAACGGAAGAAT
 CAGCCTGGTGTGGGCGGAGACCACAGTTTGGCAATTGGAAGCATCTCTGGCCATGCCAG
 GGTCCACCCTGATCTTGAGTCACTCTGGGTGGATGCTCACAAGTATCAACACTCCACT
 GACAACCACAAGTGGAACTTGCATGGACAACCTGTATCTTTCCTCCTGAAGGAACTAAA
 AGGAAAGATTCCTGATGTGCCAGGATTCTCCTGGGTGACTCCCTGTATATCTGCCAAGGA
 TATTGTGTATATTGGCTTGAGAGACGTGGACCCTGNGGAACACTACATTTTGAAAACCT
 AGGCATTAATACTTTTCAATGACTGAAGTGGACAGACTANGAATTGGCAAGGTGATGGA
 AGAAACACTCAGCTATCTACTAGGAAGAAAGAAAGGCCATTCATCTAGTTTTGATGTTGA
 CGGACTGGACCCATCTTTCACACCAGCTACTGGCACACCAGTCGTGGGAAGGTCTGACAT
 ACAGNAAANGGTCTCTACATCACAGAAGAAATCTACAAACAGGGTACTTNCAGATTAG
 ATTAATGGAAGTGAACCATNCCTGGGNNAGACACAGAGAAGTACTCGAC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000045 unedited
 NNCCCCGGANNNNNCNNAANAAAAAAGTACTGACTTGNACCGCGCCGATACTANGAT
 CGGTTTTTTTTTTTTTTTTTTTCTTGTATAAAAAATTTATTATAAAAAACACATTTTTTG
 AATGACATGGACACATAGTACCTTCCACATGTGGTAGCTTTGTCTCCTGATTCCAAGAG
 TCCCCTCTATGTATGGGGGCTTATGTAAGTGTGCTTATTTTTAATGCCAGCAAATTTTT
 AATTGGAAATCAATGTACACTTCTTTCTAAGGATAAGTCTTTTGCCAAGTTAGAAAAT
 ATAAGCTTTTAAATTTCAAAAAAGTTAGAATTTCCACATCTTGAATTTTACACCAAGAGG
 GAATTTGTAGAGTTTATACTAATTGAAAAACATTTTTCTGAAAGAACAAGTCTTTAGAA
 GGATAACTCTATGCTTAAGAAAATGATTAGCTTTCTAATTATGCCATTAAGTATGAGATT
 TATATCGGATGTTTCCACATTTACTTAGGTGGGTTAAGGTAGTCAATAGGCTTGTGATTA
 CCCTCCCGAGCAAGTCCCGAAACAAGCCAAGGTTATTGCAACTGCTGTGTTCACTGTTCCG
 AGTTACTTCTTCTGGTGTCTTCCCGAGGAATGGGTTCACTTCCATTATATCTAATCTGA
 GAGTAGCCCTGTTTGTAGATTTCTTCTGTGATGAAGAGACCCTCCTCTGTATGTCAGAC
 CTCCACGACTGGTGTGCCAGAAGCTGGTGTGAAAGATGGTCCACGCCGCCACATCAAAA
 CTTAATGAATTGCCCTTTCTTTTTTCTAAGAGAAGCTGAATGTTTCTCCATCACCTT
 GCCAATTTAAACTGGCCCTTAGCAATTGAAAAGATTTAATGCCCTAAGTTTCAAAAAT
 GTAGTTTCCCAGGGTCCCCTTTTTTAAGCCAATTAACCAATTTTCTTGCCCAAATTCGG
 GAGCACCCAGGAAAACCGGCAATCGGG

Restriction Sites:

NotI-NotI

ACCN:

NM_000045

Insert Size:

1570 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_000045.2 , NP_000036.2
RefSeq Size:	1447 bp
RefSeq ORF:	969 bp
Locus ID:	383
UniProt ID:	P05089
Cytogenetics:	6q23.2
Domains:	arginase
Protein Families:	Druggable Genome
Protein Pathways:	Arginine and proline metabolism, Metabolic pathways
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (2) uses an alternate in-frame splice site at the 5' end of an exon compared to variant 1. The resulting isoform (2) has the same N- and C-termini but is shorter compared to isoform 1.</p>