

## Recombinant Human ARG2, His-tagged

**Cat. No.** ARG2-26536TH **Lot. No.** (See product label)

### SPECIFICATION

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>   | Recombinant Human full-length mature Arg2, amino acids 23-354, fused to a 20 amino acid His-Tag at N-terminus, predicted MWt 38.3 kDa inclusive of tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>            | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>             | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ProteinLength</b>      | 332 amino acids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>        | 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. |
| <b>Conjugation</b>        | HIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Molecular Weight</b>   | 38.300kDa inclusive of tags                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Tissue specificity</b> | Expressed most strongly in kidney and prostate, much less strongly in the brain, skeletal muscle, placenta, lung, mammary gland, macrophage, uterus, testis and gut, but apparently not in the liver, heart and pancreas.                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>                     | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>                   | >95% by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Storage buffer</b>           | pH: 8.00 Constituents: 10% Glycerol, 0.32% Tris HCl                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Storage</b>                  | Please see Notes section                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Sequences of amino acids</b> | MGSSHHHHHH SSGLVPRGSH MVHSVAVIGA PFSQGQKRKG VEHGPAAIRE<br>AGLMKRLSSL GCHLKDFGDL SFTPVPKDDL YNNLIVNPRS VGLANQELAE<br>VVSRAVSDGY SCVTLGGDHS LAIGTISGHA RHCPDLCVWV VDAHADINTP<br>LTTSSGNLHG QPVSFLLREL QDKVPQLPGF SWIKPCISSA SIVYIGLRDV<br>DPPEHFILKN YDIQYFSMRD IDRLGIQKVM ERTFDLLIGK RQRPIHLSFD<br>IDAFDPTLAP ATFTPVVGGL TYREGMYIAE EIHNTGLLSA LDLVEVNPQL<br>ATSEEEAKTT ANLAVDVIAS SFGQTREGGH IVYDQLPTPS SPDESENQAR VRI. |
| <b>Sequence Similarities</b>    | Belongs to the arginase family.                                                                                                                                                                                                                                                                                                                                                                                         |

## GENE INFORMATION

|                        |                                                     |
|------------------------|-----------------------------------------------------|
| <b>Gene Name</b>       | ARG2 arginase, type II [ Homo sapiens ]             |
| <b>Official Symbol</b> | ARG2                                                |
| <b>Synonyms</b>        | ARG2; arginase, type II; arginase-2, mitochondrial; |
| <b>Gene ID</b>         | 384                                                 |
| <b>mRNA Refseq</b>     | NM_001172                                           |

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|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Protein Refseq</b>      | NP_001163                                                                                                                                                                                                                                      |
| <b>MIM</b>                 | 107830                                                                                                                                                                                                                                         |
| <b>Uniprot ID</b>          | P78540                                                                                                                                                                                                                                         |
| <b>Chromosome Location</b> | 14q24.1                                                                                                                                                                                                                                        |
| <b>Pathway</b>             | Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Arginine and proline metabolism, organism-specific biosystem; Arginine and proline metabolism, conserved biosystem; Metabolic pathways, organism-specific biosystem; |
| <b>Function</b>            | arginase activity; hydrolase activity; metal ion binding; nitric-oxide synthase binding;                                                                                                                                                       |

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