

Recombinant Human ARG1 Protein, His/MYC-tagged

Cat. No. ARG1-296H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human ARG1 (NP_000036.2) (Met1-Lys322) was expressed with a polyhistidine tag at the N-terminus and a myc tag at the C-terminus.
Species	Human
Source	HEK293
ProteinLength	Met1-Lys322
Description	Arginase is the first centigradeal enzyme of the urea cycle hydrolysing L-arginine to urea and L-ornithine. Emerging studies have identified arginase in the vasculature and have implicated this enzyme in the regulation of nitric oxide (NO) synthesis and the development of vascular disease. Arginase also redirects the metabolism of L-arginine to L-ornithine and the formation of polyamines and L-proline, which are essential for smooth muscle cell growth and collagen synthesis. Arginase is encoded by two recently discovered genes (Arginase I and Arginase II). In most mammals, Arginase 1 (ARG1) also known as Arginase, liver, which functions in the urea cycle, and is located primarily in the cytoplasm of the liver. The second isozyme, Arginase II, has been implicated in the regulation of the arginine/ornithine concentrations in the cell. It is located in mitochondria of several tissues in the body, with most abundance in the kidney and prostate. It may be found at lower levels in macrophages, lactating mammary glands, and brain.
Predicted N Terminal	His

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Form	Lyophilized from sterile 20 mM Tris, 500 mM NaCl, 20 % glycerol, pH 7.4. Normally 5 %- 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant human ARG1 consists of 338 amino acids and predicts a molecular mass of 36.7 kDa.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method.
Purity	> 95 % as determined by SDS-PAGE.
Storage	Samples are stable for up to twelve months from date of receipt at -70 centigrade. Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name	ARG1 arginase, liver [Homo sapiens]
Official Symbol	ARG1
Synonyms	ARG1; arginase, liver; arginase-1; type I arginase; liver-type arginase;
Gene ID	383
mRNA Refseq	NM_000045
Protein Refseq	NP_000036

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MIM	608313
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UniProt ID	P05089
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