

# Recombinant Human Arginase-1/ARG1 Protein (HEK293 Cells, His Tag)



Catalog Number:PKSH031087

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

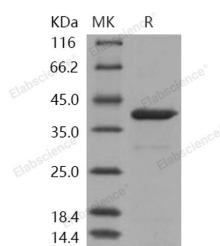
## Description

<b>Synonyms</b>	Arginase-1;Liver-type arginase;Type I arginase;ARG1
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met 1-Lys 322
<b>Accession</b>	P05089-1
<b>Calculated Molecular Weight</b>	36.2 kDa
<b>Observed molecular weight</b>	40 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Measured by the production of urea during the hydrolysis of arginine. The specific activity is > 35, 000 pmoles/min/μg.

## Properties

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per μg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 20mM Tris, 150mM NaCl, 20% Glycerol, 1mM DTT, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed m
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 90 % as determined by reducing SDS-PAGE.

## Background

Arginase is the focal 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 I

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(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.

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