

RP00247

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# Recombinant Human Arginase 1/ARG1 Protein

Catalog No.: RP00247

Recombinant

## Sequence Information

Species	Gene ID	Swiss Prot
Human	383	P05089-1

**Tags**  
C-His

**Synonyms**  
ARG1; arginase-1; arginase-1

## Background

Arg1 also known as liver arginase, is a binuclear manganese metalloenzyme. It is a key enzyme of the urea cycle that catalyses the conversion of L-arginine into L-ornithine and urea, the final cytosolic reaction of urea formation in the mammalian liver. Arginase 1 is abundantly expressed in liver, but it is also expressed in cells and tissues that lack a complete urea cycle, including lung. Arginase is a critical regulator of nitric oxide synthesis and vascular function. It is implicated in a variety of human diseases including vascular disease, pulmonary disease, infectious disease, immune cell function and cancer. In humans, hereditary defects in arginase result in an accumulation of arginine in the blood known as hyperarginemia. Arginase deficiency can also result in the accumulation of nitrogen in the form of ammonia, which results in hyperammonemia.

## Product Information

Source	Purification
HEK293 cells	> 92% by SDS-PAGE.

**Endotoxin**  
< 0.01 EU/μg of the protein by LAL method.

**Formulation**  
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

**Reconstitution**  
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize freeze-thaw cycles.

## Basic Information

**Description**  
Recombinant Human Arginase 1/ARG1 Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Met 1 - Lys 322) of human Arginase (Accession #NP\_000036.2) fused with a 6×His tag at the C-terminus.

**Bio-Activity**  
Measured by the production of urea during the hydrolysis of arginine. The specific activity is >27833 pmol/min/μg.

**Storage**  
Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

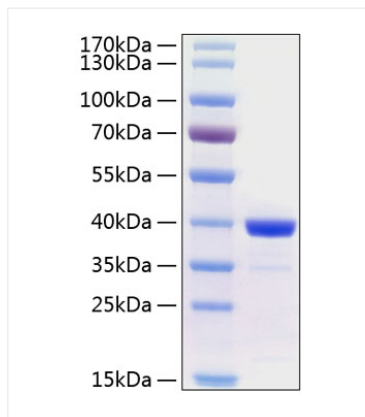
## Contact



[www.abclonal.com](http://www.abclonal.com)

## Validation Data

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Recombinant Human Arginase 1/ARG1  
Protein was determined by SDS-PAGE with  
Coomassie Blue, showing a band at 38 kDa.