

**AR09474PU-L****Human Arginase-1 (1-322, His-tag) - Purified****Alternate names:**

ARG1, Liver-type arginase, Type I arginase

**Quantity:**

0.5 mg

**Concentration:**

0.5 mg/ml (determined by Bradford assay)

**Background:**

Arginase is a manganese-containing enzyme which catalyzes the hydrolysis of arginine to ornithine and urea. It is the final enzyme of the urea cycle. 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 functions in the urea cycle, and is located primarily in the cytoplasm of the liver. The type II isoform 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.

**Uniprot ID:**[P05089](#)**NCBI:**[NP\\_000036](#)**GeneID:**[383](#)**Species:**

Human

**Source:**

E. coli

**Format:****State:** Liquid purified protein**Purity:** >85% by SDS - PAGE**Buffer System:** 20 mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 2 mM DTT, 100 mM NaCl**Description:**

Recombinant human ARG1, fused to His-tag at C-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.

**AA Sequence:**

MSAKSRTIGI IGAPFSKGQP RGGVEEGPTV LRKAGLLEKL KEQECDVKDY GDLPFADIPN  
DSPFQIVKNP RSVGKASEQL AGKVAEVKKN GRISLVLGGD HSLAIGSISG HARVHPDLGV  
IWVDAHTDIN TPLTTTSGNL HGQPVSFLK ELKGKIPDVP GFSWVTPCIS AKDIVYIGLR  
DVPDGEHYIL KTLGIKYFSM TEVDRLGIGK VMEETLSYLL GRKKRPIHLS FDVDGLDPSF  
TPATGTPVVG GLTYREGLYI TEEIYKTGLL SGLDIMEVNP SLGKTPEEVT RTVNTAVAIT  
LACFGLAREG NHKPIDYLNPKLEHHHHHH

**Molecular weight:** 35.8 kDa (330 aa), confirmed by MALDI-TOF**Storage:**

Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

**General Readings:**

1. Iyer RK, Yoo PK, Kern RM, Rozengurt N, Tsoa R, O'Brien WE, et al. Mouse model for human arginase deficiency. *Mol Cell Biol.* 2002 Jul;22(13):4491-8. PubMed PMID: 12052859.

2. Wu G., et al (1998) *The Biochemical journal* 336 (Pt 1) 1-17.

**Pictures:**

Recombinant human ARG1, 1-322 aa, His-tagged: 15% SDS-PAGE (3 µg)

