

Recombinant human Arginase 1/ARG1 protein

Catalog Number: ATGP3922

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-322aa

UniProt No.

P05089

NCBI Accession No.

NP_000036

Alternative Names

Arginase-1 liver, Arginase-1, liver, Arginase-1, liver A I, AI, ARG 1, ARG1, Arginase 1, Arginase liver, Arginase type I, Arginase1, Liver type arginase, Type I arginase.

PRODUCT SPECIFICATION

Molecular Weight

35.8 kDa (330aa) confirmed by MALDI-TOF

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 2mM DTT, 100mM NaCl

Purity

> 85% by SDS-PAGE

Biological Activity

Specific activity is > 150,000pmol/min/ug, and is defined as the amount of enzyme that hydrolyze 1.0pmole of arginine to urea per minute at pH 10.5 at 37C.

Tag

His-Tag

Application

SDS-PAGE, Enzyme Activity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

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

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

Amino acid Sequence

MSAKSRTIGI IGAPFSKGQP RGGVEEGPTV LRKAGLLEKL KEQECDVKDY GDLPFADIPN DSPFQIVKNP RSVGKASEQL
AGKVAEVKKN GRISLVLGGD HSLAIGSISG HARVHPDLGV IWVDAHTDIN TPLTTTSGNL HGQPVSFLK ELKGKIPDVP
GFSWVTPCIS AKDIVYIGLR DVDPGEHYIL KTLGIKYFSM TEVDRLGIGK VMEETLSYLL GRKKRPIHLS FDVDGLDPSF
TPATGTPVVG GLTYREGLYI TEEIYKTGLL SGLDIMEVNP SLGKTPEEVT RTVNTAVAIT LACFGLAREG NHKPIDYLNP
PK<LEHHHHHH>

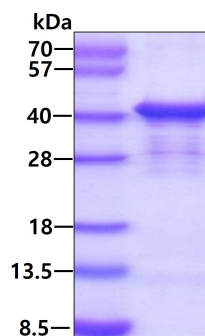
General References

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

Iyer RK., et al (2002) *Molecular and cellular biology* 22 (13): 4491-8.

DATA

SDS-PAGE



3 μ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.