Datasheet for ABIN6253489

# Liver Arginase Protein (active Mutant)

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## Overview

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| Quantity: | 10 µg |
| Target: | Liver Arginase (ARG1) |
| Protein Characteristics: | active Mutant |
| Origin: | Human |
| Source: | Escherichia coli (E. coli) |
| Protein Type: | Recombinant |

## Product Details

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| Purpose: | Arginase I (human) (rec.) (highly active) |
| Specificity: | Full length human arginase I. |
| Characteristics: | Protein. Full length human arginase I. Source: E. coli. Liquid. In 10 mM TRIS-HCl, pH 7.5, containing 1 mM beta-mercaptoethanol, 1 mM MnCl2 and 50 % glycerol. Purity: >90 % (SDS-PAGE). Arginase catalyzes the hydrolysis of arginine to ornithine and urea. 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 is a cytosolic enzyme and expressed predominantly in the liver as a component of the urea cycle. Inherited deficiency of this enzyme results in argininemia, an autosomal recessive disorder characterized by hyperammonemia. Arginase is involved in the nitric oxide (NO) pathway and immune cell arginine metabolism. It is fundamentally involved in cancer, inflammation, infections, fibrotic diseases, neurobiology, pregnancy and immune regulation in general. |
| Purity: | >90 % (SDS-PAGE) |

## Product Details

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| Biological Activity Comment: | 1.6 ±0.2U/µg protein. One unit is defined as the amount of enzyme that converts 1µmol of L-arginine to L-ornithine and urea per min. at 37°C, pH 9.5 (according to protocol from R.T. Schimke, et al.; J. Biol. Chem. 238, 1012 (1963)). |

## Target Details

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| Target: | Liver Arginase (ARG1) |
| Alternative Name: | Arginase I (ARG1 Products) |
| Background: | Alternate Names/Synonyms: EC 3.5.3.1, ARG1, Arginase 1, Type I Arginase, Liver-type Arginase, L-Arginase<br>Product Description: Arginase catalyzes the hydrolysis of arginine to ornithine and urea. 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 is a cytosolic enzyme and expressed predominantly in the liver as a component of the urea cycle. Inherited deficiency of this enzyme results in argininemia, an autosomal recessive disorder characterized by hyperammonemia. Arginase is involved in the nitric oxide (NO) pathway and immune cell arginine metabolism. It is fundamentally involved in cancer, inflammation, infections, fibrotic diseases, neurobiology, pregnancy and immune regulation in general. |
| UniProt: | P05089 |
| Pathways: | Cellular Response to Molecule of Bacterial Origin |

## Application Details

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| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Concentration: | Lot specific |
| Buffer: | Liquid. In 10 mM TRIS-HCl, pH 7.5, containing 1 mM beta-mercaptoethanol, 1 mM MnCl2 and 50 % glycerol. |
| Handling Advice: | Avoid freeze/thaw cycles. |
| Storage: | -20 °C,-80 °C |

## Handling

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| Storage Comment: | Short Term Storage: -20°C<br>Long Term Storage: -80°C<br>Use & Stability: Stable for at least 1 year after receipt when stored at -80°C. |