



Arginase-I (Liver Type) Human, Mouse Monoclonal Antibody, Clone: 6G3

Product Data Sheet

Source of Antigen: *E. coli*

Host: Mouse

Isotype: IgG1

Cat. No.:

RD182028100 (0.1 mg)

Other names: EC 3.5.3.1, L-arginine aminohydrolase

Research topic

Blood pressure regulation and NO metabolism

Preparation

The antibody is a mouse monoclonal antibody against recombinant Human Arginase - liver type arginase.

Species Reactivity

Human

Not yet tested in other species.

Antibody Content

0.1 mg (determined by BCA method, BSA was used as a standard)

Formulation

The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. **AZIDE FREE.**

Reconstitution

Add 0.1 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage/Stability

The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

Expiration

See vial label.

Lot Number

See vial label.

Quality Control Test

SDS PAGE - to determine purity of the antibody.

Applications

ELISA, Western blotting

Introduction to the Molecule

Arginase [EC 3.5.3.1; L-arginine aminohydrolase] is an enzyme that hydrolyzes L-arginine to L-ornithine and urea in the urea cycle. Two forms of arginase exist which are designated as arginase I and arginase II. Liver-type arginase I is expressed primarily in the liver and to some extent in the erythrocytes. Arginase II is expressed in many extrahepatic tissues, such as brain, spinal cord, kidney, small intestine and mammary gland. Although arginase I and arginase II have similar enzyme activities, they have different pI, immunological reactivity and are encoded by different genes. Human arginase I is a 35 kDa protein circulating in blood probably as a homotrimer. Circulating liver-type arginase was clinically used as a liver specific marker which may reflect not only early occurrence of liver injury but also early termination of liver injury. The measurement of liver-type arginase is clinically applicable for monitoring conditions of patients with liver disorders or pre- and postoperative conditions of patients who received partial hepatectomy with quicker normalization in comparison with aminotransferases (ALT and AST).

Recently, arginase I gene was found to be one of the most prominent among asthma genes. In situ hybridization demonstrated marked staining of arginase I in submucosal inflammatory lesions and arginase activity increased in allergen challenged lungs. Finally, it was found that both arginase I was the most significantly up-regulated protein in the murine spinal cord during experimental autoimmune encephalomyelitis. The results indicated that arginase I played important roles in autoimmune inflammation in the central nervous system.

Note

This product is for research use only.

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